BROWNFIELD REDEVELOPMENT ASSESSMENT REPORT

FOR

JOHN'S TIRE REPAIR

665 E. PHILADELPHIA STREET

DETROIT, MICHIGAN

MIB000000135

September 13, 2007

REPORT PREPARED BY: _____ DATE: 9/13/2007

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REVIEWED AND APPROVED BY: _____ DATE: 9/13/07

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EXECUTIVE SUMMARY

The Michigan Department of Environmental Quality (MDEQ) was contracted via a cooperative agreement with the United States Environmental Protection Agency to conduct Brownfield Redevelopment Assessments (BFRAs). BFRAs are conducted to provide information on brownfield properties where potential environmental contamination may be acting as an impediment to future redevelopment activities. They are also conducted to determine if a property is a facility as defined in Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and to provide recommendations for addressing issues during redevelopment. A facility is an area that contains a hazardous substance at a concentration that exceeds residential cleanup criteria (Criteria) established in Section 20120a(1)(a) or (17) of Part 201. Staff of the MDEQ (Staff) used file and data searches and environmental sample collection and analyses to obtain the needed information to make the facility determination and recommendations. This report presents the findings of the John's Tire Repair property (Property) BFRA.

This BFRA report is written for the purpose of providing information on the Property that will encourage redevelopment in a way that ensures protection of the public health, safety, welfare, and the environment. This information is intended for use by the local unit of government, the MDEQ, potential developers, and anyone who may become involved in the future redevelopment of the Property. The report includes a summary of the property background, assessment procedures, results, conclusions, and recommendations. The conclusion, as to whether the Property is a facility as defined in Part 201, is made by comparison of sample concentrations of hazardous substances to state cleanup criteria established under Part 201.

The Michigan Land Bank Fast Track Authority (Authority) requested the MDEQ on August 29, 2006, to conduct a BFRA of the Property (MLBFTA 2006). The Authority gained ownership of the Property in December 2004 from the Michigan Department of Natural Resources (MDNR) in order to try and move the property back into private ownership. The MDNR gained ownership of the property in May 2000 through the tax reversion process. The Property is located in the city of Detroit and has a potential for being contaminated due to its former use as a filling station and for automotive repairs.

Staff completed some preliminary evaluations prior to mobilizing to the Property for sampling. A MDEQ geologist completed a geophysical survey to determine subsurface features (MDEQ 2007c), such as underground tanks. This information was used later to help draft a sampling plan and guide field efforts in finding appropriate sample locations. A work plan for the Property was completed on March 29, 2007 (MDEQ 2007e).

Staff completed its field sampling and investigation of the Property on April 12, 2007. This included the collection of 11 surficial soil and 10 soil boring samples. Staff also took photographs of general property conditions and obtained Global Positioning System data to determine sample and feature locations.

Analysis of the samples detected the presence of several contaminants of concern (COCs), defined as hazardous substances found in concentrations exceeding Criteria. These include seven volatile organic compounds: (benzene, sec-butylbenzene, ethylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes); four semi-volatile organic compounds: (benzo(a)pyrene, fluoranthene, naphthalene, and phenanthrene); and sixteen inorganic analytes: (antimony, arsenic, barium, cadmium, total chromium, cobalt, copper, cyanide, iron, lead, mercury, molybdenum, selenium, silver, vanadium, and zinc). Due to the elevated levels of contaminants above Criteria, the MDEQ staff has determined that the Property meets the definition of a facility as defined in Part 201.

The volatile compounds were COCs only in soil boring samples SB3, SB4, SB5, SB6, and SB7. All these samples were located near the underground storage tanks (USTs) on the south side and near the former pump islands on the east side. Thus, the volatile organic COCs found here can be attributed to past activities at the Property when it was used as a filling station. All the volatile compounds are known to be found in gasoline.

The semi-volatile organic compound COCs were found in soil boring samples SB3, SB4, SB6, SB7, and SB9. As with the volatile compounds, these were associated primarily with the USTs and the pump island. SB9 was located on the west side of the Property, between the 55 gallon drum and a door of the building. Naphthalene was a COC in all these samples. It is also a known constituent of gasoline. Benzo(a)pyrene, fluoranthene, and naphthalene were also COCs in the shallow soil, but only at sample SS1.

The inorganic analyte COCs were found more in the shallow soil samples, but some were in the deeper samples. All sixteen were COCs in the shallow soils. Only seven were COCs in the deeper soils: arsenic, total chromium, cobalt, iron, molybdenum, selenium, and zinc.

Based on the findings of the BFRA, the MDEQ staff recommends that the following issues should be addressed before, or during, the redevelopment of the Property:

- All three relevant exposure pathways should be considered and further evaluated before and during any future redevelopment activity;

- Since subsurface soils in the southeast part of the Property contain high levels of volatile organic compounds, this area will need to be mitigated to eliminate future exposures due to direct contact with shallow groundwater or due to exposures to indoor air.

- Risks due to direct contact with soils will need to be evaluated prior to redevelopment.

- We examined the building and did not find any asbestos containing materials.

- The contaminants of concern should be considered with respect to responsibilities that may exist under Part 201. The nature of any response activity that may be required is dependent on the intended use of the Property and the party's liability under Part 201. A person who is liable for the contamination is required to achieve cleanup of the Property consistent with the cleanup criteria. The relevant criteria are a function of the intended property use, such as residential, commercial, or industrial. A non-liable developer is not required to implement a cleanup to achieve the appropriate cleanup criteria. However, a non-liable party must comply with the "due care" provisions specified in Section 7a obligations of Part 201. These obligations include not exacerbating the existing contamination, exercising due care to assure there are not unacceptable exposures, and taking reasonable precautions against the reasonably foreseeable activities of third parties.

- Further information concerning Part 201 cleanup criteria, due care provisions, and remedial and/or removal activities may be obtained from the MDEQ Remediation and Redevelopment Division, Southeast Michigan District Office at 313-456-4700.

INTRODUCTION

The Michigan Department of Environmental Quality (MDEQ) was contracted via a cooperative agreement (CA) with the United States Environmental Protection Agency (U.S. EPA) to conduct Brownfield Redevelopment Assessments (BFRAs). A BFRA was requested for the John's Tire Repair property (Property) by the Michigan Land Bank Fast Track Authority to assist in their redevelopment plans for the Property. BFRAs are performed to fulfill the Site Specific Assessment (SSA) task in the Section 128(a) CA. The Section 128(a) CA was entered into between the MDEQ and the U.S. EPA as a result of the "Small Business Liability Relief and Brownfield Revitalization Act" amendments to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Title 42 of the United States Code, Section 9601).

A brownfield property is a real property, usually an abandoned, idled, or under-utilized industrial or commercial property, or a portion thereof, where the presence or potential presence of a hazardous substance, pollutant, or contaminant may be acting as an impediment to expansion, redevelopment, or reuse of the Property. Properties targeted for the SSA task are those brownfield properties that have an active potential for expansion, redevelopment, or reuse.

The MDEQ staff conducts environmental investigations of brownfield properties to determine the types and locations of past and present activities, potential relevant migration pathways of concern, types and concentrations of potential contaminants, and the need for remedial and/or removal actions on the Property. These findings are summarized in this BFRA report along with the determination of whether the Property meets the definition of a facility as defined in Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201). A facility is an area that contains a hazardous substance at a concentration that exceeds residential cleanup criteria established in Section 20120a(1)(a) or (17) of Part 201.

As part of the BFRA, property specific environmental migration pathways are evaluated for potential exposure routes and relevancy with regard to Part 201. These pathways are evaluated to determine the potential risks posed by elevated levels of hazardous substances in those pathways. As stated in Part 201, a relevant pathway means an exposure pathway that is reasonable and relevant because there is a reasonable potential for exposure to a hazardous substance to occur to a human or non-human receptor from a source or release of a hazardous substance. The components of an exposure pathway are a source or release of a hazardous substance, an exposure point, an exposure route, and, if the exposure point is not the source or point of release, a transport medium. The existence of an exposure control measure, exposure barrier or other similar feature, such as a municipal water supply, does not automatically make an exposure pathway irrelevant.

A BFRA of the Property was conducted in accordance with the CA with the U.S. EPA. The BFRA included file and information searches, a reconnaissance inspection of the Property, a geophysical survey of subsurface conditions, the collection of surficial soil, subsurface soil, Global Positioning System (GPS) data collection of sample locations and property features, and the collection of site feature photographs.

PROPERTY BACKGROUND

Property Description

The 0.5-acre Property is located in the middle of Detroit in the northwest quadrant of the Philadelphia Street and Oakland Street crossing. Highland Park is just to the north, and Hamtramck to the east. The coordinates to the center of the Property are 42°N 22' 53.0" latitude (42.38137452°), 83°W 4' 12" longitude (-083.06982015°) (MLBFTA 2006, MSU 2003-2005). The address is 665 E. Philadelphia Street, Detroit.

See Figure 1 for the Property Location map.

Property History

A variety of current and historical information and databases, including property file information, historical aerial photographs, Sanborn® maps, and the Polk's City Directory were used to identify previous uses of the Property. A major portion of this historical informational search included procuring much of this information from Environmental Data Resources Inc.'s (EDR) historical data packages. These EDR historical reports are provided in Appendix A.

The MDEQ has limited historical information for the Property dating back to 1886 (EDR 2007a,b,c,d; MLBFTA 2006). City directories show no entries between 1886 and 2007. 1910 and 1915 Sanborn maps show the lot as vacant and without any buildings. A 1937 aerial photograph appears to show the lot as still vacant, although the image is somewhat unclear. Aerial photos from the years 1947 through 2000 appear to show the same L-shaped building present on the Property. The earliest Sanborn map to show a building is 1950. The map indicates the Property was used as a filling station. It shows three gasoline tanks on the south side of the building. A door is shown on the west end of the north wing or garage. The 1957 and 1961 Sanborn maps show the same. A 1977 Sanborn map has the building marked as vacant and the gasoline tanks are no longer shown on the map. Maps from 1984, 1987, 1990, and 1993, still show the building as present, but also without the gasoline tanks shown.

More recently, the Property has tax-reverted to the state (MLBFTA 2006). It reverted to the Michigan Department of Natural Resources in May 2000, and has been vacant since at least then. The Property transferred to the Michigan Land Bank Fast Track Authority in December 2004.

The Authority wants to use the data generated by the BFRA to provide information to prospective developers for completing a Baseline Environmental Assessment of the Property in Detroit, Michigan. This request resulted in the investigation of this Property under the BFRA program.

PROCEDURES AND RESULTS

Reconnaissance Inspection Observations

A BFRA property reconnaissance was conducted at the Property on March 20, 2007. The purpose of the reconnaissance was to gather information to be used in development of the BFRA sampling plan, to determine appropriate health and safety requirements, and to determine potential sampling locations. The team documented the features, known and potential source areas, and debris types located throughout the Property and identified the environmental concerns associated with each area of concern.

On April 12, 2007, a sampling inspection reconnaissance was conducted at the Property for the purpose of locating the actual sample locations prior to collection of the samples. This reconnaissance was also conducted to determine whether there were any changes in the conditions or features of the Property.

Known areas of concern include the following based on the property audit and reconnaissance field notes:

- Debris piles in the north and northeast parts of the Property and in the southwest corner,
- Subsurface soils south of the building in the area where past and possibly present gasoline underground storage tanks were present (a cover plate was noted in the pavement in this area, and two vent pipes were noted on the southwest corner of the building),
- The area between the west door of the building and a 55-gallon drum,
- The auto repair garage, where various automotive fluids may have been spilled,
- Possible asbestos-containing materials inside the building, and
- Lead paint on building walls.

See Figure 2 for the Property Features map. Photographs of the Property were taken during the BFRA and are provided in Appendix B.

Geophysical Survey Results

An MDEQ geologist conducted a geophysical survey of the Property in March 2007. This subsurface investigation was completed prior to the field sampling, to aid in the determination of sampling locations. Past uses of the Property suggested the possibility of subsurface structures. The survey results indicated the presence of three underground storage tanks with associated piping, buried scrap metal, and potential contamination areas. The geophysical survey report/maps are provided in Appendix C.

Sampling Procedures and Results

The field sampling event was conducted on April 12, 2007. It included the collection of 11 surficial soil, and 10 soil boring samples from suspected areas of contamination at the Property. These samples included two duplicate samples. The sample locations were surveyed in utilizing a Global Positioning System (GPS).

The samples were collected in order to:

- Determine the levels of U.S. EPA Target Compound List compounds (organic compounds) and Target Analyte List analytes (inorganic elements) which may be present at the Property.
- Characterize potential contamination in shallow and subsurface soils and groundwater on the Property.
- Characterize potential contaminant source areas.
- Ascertain potential contaminant migration from possible source areas.
- Evaluate health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, or natural resources associated with the different sample media.
- Evaluate and determine whether the Property is a facility in accordance with the definition found in Part 201, Section 20101(o).

Standard MDEQ sample collection, preservation, and decontamination procedures, as outlined in the work plan, were followed for all samples. Sample collection and preservation followed the MDEQ Remediation and Redevelopment Division (RRD) Operational Memorandum 2, Attachments 4-6. Soil samples analyzed for volatile organic compounds were field preserved with methanol. Remaining soil sample portions were not chemically preserved. Water samples were not collected during this BFRA. Soil samples were analyzed for organic compounds and inorganic analytes, consistent with the MDEQ RRD Operational Memorandum 2, Attachment 1, utilizing the following methods:

Compound/Analyte	**Analytical Method for Soil**
Volatile Organics	8260
Semi-volatile Organics	8270
Pesticides	8081
PCBs	8082
Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Lead, Molybdenum, Nickel, Vanadium, Zinc	6010/6020
Antimony, Selenium, Silver, Thallium	6020
Arsenic	7060
Cyanide	9010
Iron	6010
Mercury	7471

Staff of the MDEQ followed quality assurance/quality control procedures as outlined in the Quality Assurance Project Plan for Site Assessment and Brownfield Activities (MDEQ, 2003). Upon collection of the samples, staff labeled all sample bottles and placed them in insulated sample shipment coolers. The interior of the shipment coolers was kept at a temperature of approximately four degrees Celsius with ice and delivered to the MDEQ Laboratory. John Spielberg transported the samples to the MDEQ Laboratory for analysis. Laboratory analytical data for all the sample analyses are provided in Appendix D.

After sample analysis, the MDEQ Laboratory sent results to the Team Leader, who then began processing the data for this report. Contaminants exceeding the Generic Cleanup Criteria (Criteria) promulgated pursuant to Part 201 will be described in the following sections. The current Part 201 Criteria are provided in Appendix E. Although samples SS1 and SB1 were designated as background samples, staff determined that these could not be used to represent background conditions for inorganic analytes. Any sample concentrations of naturally occurring inorganic analytes above Criteria but equal to or below statewide default background levels are not considered exceedances of Part 201 Criteria in this report.

Surficial Soil Samples

The intent of the surficial soil sampling was to characterize potentially contaminated surficial soil or source areas, to determine the potential for possible contaminant migration, and to determine health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, and resources, associated with the surficial soils at the Property. To accomplish this sampling task, 11 surficial soil samples, including one duplicate, were collected during the BFRA. All samples were collected using stainless steel trowels from depths ranging from 1 to 9 inches below the ground surface according to the procedures outlined in the work plan.

See Figure 3 for a map showing surficial soil sample locations. For a description of the surficial soil sample locations and the sample characteristics, refer to Table 1. Table 2 provides a summary of the surficial soil sample analytical results that exceed Part 201 Criteria and lists the Criteria exceedances.

Analysis of the surficial soil samples collected during the BFRA detected the presence of organic compounds and inorganic analytes at concentrations above Part 201 Criteria. The following lists the criteria exceedances for surficial soil samples and the compounds and samples with concentrations in excess of criteria. The horizontal and vertical extent of the contaminants in the surficial soils was not fully delineated during the BFRA of the Property.

Exceedances above the Soil Residential and Commercial I Drinking Water Protection Criteria:

These criteria represent concentrations of hazardous substances that may leach from the soil into groundwater at concentrations exceeding generic Residential and Commercial I Drinking Water Criteria.

Nine inorganic analytes were detected in surficial soil samples at concentrations that exceeded their criteria. These included: **Antimony** detected above its 4.3 milligram per kilogram (mg/kg) criterion in sample SS8 at a concentration of 8.1 mg/kg; **Arsenic** detected above its 5.8 mg/kg criterion (default background) in all the samples including the duplicate at concentrations ranging from 6.4 to 45 mg/kg; **Cadmium** detected above its 6.0 mg/kg criterion in sample SS8 at a concentration of 11 mg/kg; **Total chromium** detected above its 30 mg/kg criterion in samples SS1, SS2, SS3, SS4, SS8, and SS10 at concentrations ranging from 31 to 180 mg/kg; **Cobalt** detected above its 6.8 mg/kg criterion (default background) in samples SS1 and SS4 at concentrations of 6.9 and 7.2 mg/kg, respectively; **Iron** detected above its 12,000 mg/kg criterion (background) in samples SS1, SS2 DUP, SS3, SS4, SS6, SS8, SS9, and SS10 at concentrations ranging from 14,000 to 54,000 mg/kg; **Lead** detected above its 700 mg/kg criterion in samples SS1, SS2, SS2 DUP, SS3, SS4, SS6, SS7, SS8, and SS9 at concentrations ranging from 780 to 1300 mg/kg; **Molybdenum** detected above its 1.5 mg/kg criterion in samples SS2 DUP, SS3, SS4, SS5, SS6, SS8, SS9, and SS10 at concentrations ranging from 2.1 to 3.7 mg/kg; and **Vanadium** detected above its 72 mg/kg criterion in sample SS10 at a concentration of 120 mg/kg.

Exceedances above the Soil Industrial and Commercial II, III, and IV Drinking Water Protection Criteria:

These criteria represent concentrations of hazardous substances that may leach from the soil into groundwater at concentrations exceeding generic Industrial and Commercial II, III, and IV Drinking Water Criteria.

Seven inorganic analytes were detected in surficial soil samples at concentrations that exceeded their criteria. These included: **Antimony** detected above its 4.3 milligram per kilogram (mg/kg) criterion in sample SS8 at a concentration of 8.1 mg/kg; **Arsenic** detected above its 5.8 mg/kg criterion (default background) in all the samples including the duplicate at concentrations ranging from 6.4 to 45 mg/kg; **Cadmium** detected above its 6.0 mg/kg criterion in sample SS8 at a concentration of 11 mg/kg; **Total chromium** detected above its 30 mg/kg criterion in samples SS1, SS2, SS3, SS4, SS8, and SS10 at concentrations ranging from 31 to 180 mg/kg; **Cobalt** detected above its 6.8 mg/kg criterion (default background) in samples SS1 and SS4 at concentrations of 6.9 and 7.2 mg/kg, respectively; **Iron** detected above its 12,000 mg/kg criterion (background) in samples SS1, SS2 DUP, SS3, SS4, SS6, SS8, SS9, and SS10 at concentrations ranging from 14,000 to 54,000 mg/kg; and **Lead** detected above its 700 mg/kg criterion in samples SS1, SS2, SS2 DUP, SS3, SS4, SS6, SS7, SS8, and SS9 at concentrations ranging from 780 to 1300 mg/kg.

Exceedances above the Soil Groundwater Surface Water Interface Protection Criteria:

These criteria represent concentrations of hazardous substances that may leach from the soil into groundwater at concentrations exceeding generic Groundwater Surface Water Interface Criteria.

Two semi-volatile organic compounds and ten inorganic analytes were detected in surficial soil samples at concentrations that exceeded their criteria. These included: **Fluoranthene** detected above its 5,500 micrograms per kilogram (µg/kg) criterion in sample SS1 at a concentration of 5,700 µg/kg; **Naphthalene** detected above its 870 µg/kg criterion in sample SS1 at a concentration of 500 µg/kg; **Barium** detected above its 440 mg/kg criterion in sample SS4 at a concentration of 500 mg/kg; **Cadmium** detected above its 3.6 mg/kg criterion in samples SS1, SS2, SS8, and SS9 at concentrations ranging from 3.7 to 11 mg/kg; **Total Chromium** detected above its 18 mg/kg criterion (default background) in samples SS1, SS2, SS2 DUP, SS3, SS4, SS6, SS8, SS9, and SS10 at concentration ranging from 25 to 180 mg/kg; **Cobalt** detected in samples SS1 and SS4 at concentrations of 6.9 to 7.2 mg/kg, respectively; **Copper** detected above its 75 mg/kg criterion in samples SS1, SS2 DUP, SS3, SS4, SS8, and SS9 at concentrations ranging from 77 to 100 mg/kg; **Cyanide** detected above its 0.39 mg/kg criterion (default background) in samples SS1, SS2, SS2 DUP, SS5, and SS9 at concentrations ranging from 0.5 to 1.0 mg/kg; **Mercury** detected above its 0.13 mg/kg criterion (default background) in samples SS1, SS2, SS2 DUP, SS4, SS5, SS8, and SS9 at concentrations ranging from 0.23 to 0.38 mg/kg; **Selenium** detected at its 0.41 mg/kg criterion (default background) in all the samples except SS1 at concentrations ranging from 0.57 to 1.3 mg/kg; **Silver** detected above its 1.0 mg/kg criterion (default background) in sample SS6 at a concentration of 2.3 mg/kg; and **Zinc** detected above its 170 mg/kg criterion in all samples except SS10 at concentrations ranging from 220 to 1,700 mg/kg.

Exceedances above the Soil Residential and Commercial I Direct Contact Cleanup Criteria:

These criteria represent hazardous substances in soil at Residential and Commercial I locations in concentrations considered to be hazardous through dermal contact and ingestion of the soil.

One semi-volatile organic compound and two inorganic analytes were detected in surficial soil samples at concentrations that exceeded their criteria. These included: **Benzo(a)pyrene** detected above its 2,000 µg/kg criterion in sample SS1 at a concentration of 2,300 µg/kg; **Arsenic** detected above its 7.6 mg/kg criterion in samples SS1, SS2, SS2 DUP, SS4, SS6, SS7, SS8, and SS9 at concentrations ranging from 7.9 to 45 mg/kg; and **Lead** detected above its 400 mg/kg criterion in samples SS1, SS2, SS2 DUP, SS3, SS4, SS6, SS7, SS8, and SS9 at concentrations ranging from 780 to 1,300 mg/kg.

Exceedances above the Soil Industrial and Commercial II Direct Contact Cleanup Criteria:

These criteria represent hazardous substances in soil at Industrial and Commercial II locations in concentrations considered to be hazardous through dermal contact and ingestion of the soil.

Two inorganic analytes were detected in surficial soil samples at concentrations that exceeded their criteria. These included: **Arsenic** detected above its 37 mg/kg criterion in sample SS4 at a concentration of 45 mg/kg; and **Lead** detected above its 900 mg/kg criterion in samples SS2, SS2 DUP, SS3, SS6, SS8, and SS9 at concentrations ranging from 910 to 1,300 mg/kg.

Exceedances above the Soil Commercial III Direct Contact Cleanup Criteria:

These criteria represent hazardous substances in soil at Commercial III locations in concentrations considered to be hazardous through dermal contact and ingestion of the soil.

Only one inorganic analyte was detected in surficial soil samples at concentrations that exceeded its criterion. **Lead** was detected above its 400 mg/kg criterion in samples SS1, SS2, SS2 DUP, SS3, SS6, SS7, SS8, and SS9 at concentrations ranging from 780 to 1,300 mg/kg.

Exceedances above the Soil Commercial IV Direct Contact Cleanup Criteria:

These criteria represent hazardous substances in soil at Commercial IV locations in concentrations considered to be hazardous through dermal contact and ingestion of the soil.

Two inorganic analytes were detected in surficial soil samples at concentrations that exceeded their criteria. These included: **Arsenic** detected above its 41 mg/kg criterion in sample SS4 at a concentration of 45 mg/kg; and **Lead** detected above its 400 mg/kg criterion in samples SS1, SS2, SS2 DUP, SS3, SS6, SS7, SS8, and SS9 at concentrations ranging from 780 to 1,300 mg/kg.

Soil Boring Samples

The intent of the soil boring sampling was to characterize potential contamination in the deep soils, to determine if any downward migration of contamination has occurred from probable source areas, and to determine the potential health and safety concerns, including threats posed to nearby residential populations, future workers or occupants, or resources, associated with the deep soils at the Property. To accomplish this sampling task, 10 soil boring samples were collected from 9 separate boring locations during the BFRA. Four samples (SB1, SB2, SB2 DUP, and SB8) were collected using

hand augers up to a depth of 40 inches below ground. Six samples were collected utilizing a Geoprobe® rig with a high density polyethylene lined macro core sampler at depths ranging from 1.5 to 9.2 feet below the ground surface according to the procedures outlined in the work plan. These procedures included screening the core with a photoionization detector to help determine the presence of volatile organic compounds and potential sampling points within the cores.

See Figure 4 for a map showing soil boring sample locations. A description of the soil boring locations, lithology, and sample characteristics can be found in Table 3. Table 4 provides a summary of the soil boring sample analytical results that exceed Part 201 Criteria and lists the Criteria exceedances.

Analysis of the soil boring samples collected during the BFRA detected the presence of organic and inorganic compounds at concentrations above Part 201 Criteria. The following lists the criteria exceedances for soil boring samples and the compounds and samples with concentrations in excess of criteria. The horizontal and vertical extent of the contaminants in the deep soils was not fully delineated during the BFRA of the Property.

Exceedances above the Soil Residential and Commercial I Drinking Water Protection Criteria:

These criteria represent concentrations of hazardous substances that may leach from the soil into groundwater at concentrations exceeding generic Residential and Commercial I Drinking Water Criteria.

Seven volatile organic compounds were detected in soil boring samples at concentrations that exceeded their criteria. These included: **Benzene** detected above its 100 µg/kg criterion in samples SB4, SB5, SB6, and SB7 at concentrations ranging from 150 to 10,000 µg/kg; **sec-Butylbenzene** detected above its 1,600 µg/kg criterion in sample SB7 at a concentration of 2,200 µg/kg; **Ethylbenzene** detected above its 1,500 µg/kg criterion in samples SB4, SB6, and SB7 at concentrations ranging from 2,500 to 58,000 µg/kg; **n-Propylbenzene** detected above its 1,600 µg/kg criterion in samples SB3, SB4, SB6, and SB7 at concentrations ranging from 2,700 to 24,000 µg/kg; **1,2,4-Trimethylbenzene** detected above its 2,100 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; **1,3,5-Trimethylbenzene** detected above its 1,800 µg/kg criterion in samples SB4 and SB7 at concentrations of 2,600 and 42,000 µg/kg, respectively; and **Xylenes** detected above its 5,600 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg

Five inorganic analytes were detected in soil boring samples at concentrations that exceeded their criteria. These included: **Arsenic** detected above its 5.8 mg/kg criterion (default background) in samples SB2, SB2 DUP, SB3, SB4, SB6, SB8, and SB9 at concentrations ranging from 6.0 to 17 mg/kg; **total Chromium** detected above its 30 mg/kg criterion in sample SB4 at a concentration of 67 mg/kg; **Cobalt** detected above its 6.8 mg/kg criterion (default background) in samples SB2, SB2 DUP, SB3,

SB4, SB7, SB8, and SB9 at concentrations ranging from 7.1 to 13 mg/kg; **Iron** detected above its 12,000 mg/kg criterion (default background) in all ten samples at concentrations ranging from 14,000 to 22,000 mg/kg; and **Molybdenum** detected above its 1.5 mg/kg criterion in all samples except SB5 at concentrations ranging from 1.7 to 3.4 mg/kg.

Exceedances above the Soil Industrial and Commercial II, III, and IV Drinking Water Protection Criteria:

These criteria represent concentrations of hazardous substances that may leach from the soil into groundwater at concentrations exceeding generic Industrial and Commercial II, III, and IV Drinking Water Criteria.

Six volatile organic compounds were detected in soil boring samples at concentrations that exceeded their criteria. These included: **Benzene** detected above its 100 µg/kg criterion in samples SB4, SB5, SB6 and SB7 at concentrations ranging from 10,000 µg/kg; **Ethylbenzene** detected above its 1,500 µg/kg criterion in samples SB4, SB6, and SB7 at concentrations ranging from 2,500 to 58,000 µg/kg; **n-Propylbenzene** detected above its 4,600 µg/kg criterion in samples SB4 and SB7 at concentrations of 4,900 and 24,000 µg/kg, respectively; **1,2,4-Trimethylbenzene** detected above its 2,100 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; **1,3,5-Trimethylbenzene** detected above its 1,800 µg/kg criterion in samples SB4 and SB7 at concentrations of 2,600 and 42,000 µg/kg, respectively; and **Xylenes** detected above its 5,600 µg/kg criterion in sample SB7 at a concentration of 183,000 µg/kg.

Four inorganic analytes were detected in soil boring samples at concentrations that exceeded their criteria. These included: **Arsenic** detected above its 5.8 mg/kg criterion (default background) in samples SB2, SB2 DUP, SB3, SB4, SB6, SB8, and SB9 at concentrations ranging from 6.0 to 17 mg/kg; **total Chromium** detected above its 30 mg/kg criterion in sample SB4 at a concentration of 67 mg/kg; **Cobalt** detected above its 6.8 mg/kg criterion (default background) in samples SB2, SB2 DUP, SB3, SB4, SB7, SB8, and SB9 at concentrations ranging from 7.1 to 13 mg/kg; and **Iron** detected above its 12,000 mg/kg criterion (default background) in all the samples at concentrations ranging from 14,000 to 22,000 mg/kg.

Exceedances above the Soil Groundwater Surface Water Interface Protection Criteria:

These criteria represent concentrations of hazardous substances that may leach from the soil into groundwater at concentrations exceeding generic Groundwater Surface Water Interface Criteria.

Five volatile organic compounds were detected in soil boring samples at concentrations that exceeded their criteria. These included: **Benzene** detected above its 4,000 µg/kg criterion in samples SB6 and SB7 at concentrations of 6,300 and 10,000 µg/kg,

respectively; **Ethylbenzene** detected above its 360 µg/kg criterion in samples SB3, SB4, SB6, and SB7 at concentrations ranging from 1,300 to 58,000 µg/kg; **1,2,4-Trimethylbenzene** detected above its 570 µg/kg criterion in samples SB4, SB6, and SB7 at concentrations ranging from 900 to 140,000 µg/kg; **1,3,5-Trimethylbenzene** detected above its 2,600 µg/kg criterion in samples SB4, SB6, and SB7 at concentrations ranging from 1,200 to 42,000 µg/kg; and **Xylenes** detected above its 700 µg/kg criterion in samples SB4, SB6, and SB7 at concentrations ranging from 3,200 to 183,000 µg/kg.

Three semi-volatile organic compounds were detected in soil boring samples at concentration that exceeded their criteria. These included: **Fluoranthene** detected above its 5,500 µg/kg criterion in sample SB9 at a concentration of 10,000 µg/kg; **Naphthalene** detected above its 870 µg/kg criterion in samples SB3, SB4, SB6, SB7, and SB9 at concentrations ranging from 2,400 to 13,000 µg/kg; and **Phenanthrene** detected above its 5,300 µg/kg criterion in sample SB9 at a concentration of 9,500 µg/kg.

Four inorganic analytes were detected in soil boring samples at concentrations that exceeded their criteria. These included: **total Chromium** detected above its 18 mg/kg criterion (default background) in samples SB4, SB8 and SB9 at concentrations ranging from 19 to 67 mg/kg; **Cobalt** detected above its 6.8 mg/kg criterion (default background) in samples SB2, SB2 DUP, SB3, SB4, SB7, SB8, and SB9 at concentrations ranging from 7.1 to 13 mg/kg; **Selenium** detected above its 0.41 mg/kg criterion (default background) in samples SB2, SB4, and SB9 at concentrations ranging from 0.4 to 0.89 mg/kg; and **Zinc** detected above its 170 mg/kg criterion in samples SB4 and SB9 at concentrations of 330 and 350 mg/kg, respectively.

Exceedances above the Soil Groundwater Contact Protection Criteria:

These criteria represent concentrations of hazardous substances that may leach from the soil into groundwater at concentrations exceeding generic Groundwater Contact Criteria.
Two volatile organic compounds were detected in soil boring samples that exceeded their criteria. These included: **1,2,4-Trimethylbenzene** detected above its 110,000 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; and **Xylenes** detected above its 150,000 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg.

Exceedances above the Residential and Commercial I Soil Volatilization to Indoor Air Inhalation Criteria:

These criteria represent concentrations of hazardous substances that may volatilize from the soil into Residential and Commercial I indoor air at concentrations considered to be hazardous.

Three volatile organic compounds were detected in soil boring samples that exceeded their criteria. These included: **Benzene** detected above its 1,600 µg/kg criterion in samples SB6 and SB7 at concentrations of 6,300 and 10,000 µg/kg, respectively; **1,2,4-Trimethylbenzene** detected above its 110,000 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; and **Xylenes** detected above its 150,000 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg.

Exceedances above the Industrial and Commercial II, III, and IV Soil Volatilization to Indoor Air Inhalation Criteria:

These criteria represent concentrations of hazardous substances that may volatilize from the soil into Industrial and Commercial II, III, and IV indoor air at concentrations considered to be hazardous.

Three volatile organic compounds were detected in soil boring samples that exceeded their criteria. These included: **Benzene** detected above its 8,400 µg/kg criterion in sample SB7 at a concentrations of 10,000 µg/kg; **1,2,4-Trimethylbenze** detected above its 110,000 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg and **Xylenes** detected above its 150,000 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg.

Exceedances above the Soil Residential and Commercial I Direct Contact Cleanup Criteria:

These criteria represent concentrations of hazardous substances in soil at Residential and Commercial I locations considered to be hazardous through dermal contact and ingestion of the soil.

Two volatile organic compounds, one semi-volatile organic compound and one inorganic analyte were detected in soil boring samples at concentrations that exceeded their criteria. These included: **1,2,4-Trimethylbenzene** detected above its 110,000 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; **Xylenes** detected above its 150,000 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg; **Benzo(a)pyrene** detected above its 2,000 µg/kg criterion in sample SB9 at a concentration of 3,700 µg/kg; and **Arsenic** detected above its 7.6 mg/kg criterion in samples SB4 and SB9 at concentrations of 17 and 8.8, respectively.

Exceedances above the Soil Industrial and Commercial II Direct Contact Cleanup Criteria:

These criteria represent concentrations of hazardous substances in soil at Industrial and Commercial II locations considered to be hazardous through dermal contact and ingestion of the soil.

Two volatile organic compounds were detected in soil boring samples at concentrations that exceeded their criteria. These included: **1,2,4-Trimethylbenzene** detected above its 110,000 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; and **Xylenes** detected above its 150,000 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg.

Exceedances above the Soil Commercial III Direct Contact Cleanup Criteria:

These criteria represent concentrations of hazardous substances in soil at Commercial III locations considered to be hazardous through dermal contact and ingestion of the soil.

Two volatile organic compounds were detected in soil boring samples at concentrations that exceeded their criteria. These included: **1,2,4-Trimethylbenzene** detected above its 110,000 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; and **Xylenes** detected above its 150,000 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg.

Exceedances above the Soil Commercial IV Direct Contact Cleanup Criteria:

These criteria represent concentrations of hazardous substances in soil at Commercial IV locations considered to be hazardous through dermal contact and ingestion of the soil.

Two volatile organic compounds were detected in soil boring samples at concentrations that exceeded their criteria. These included: **1,2,4-Trimethylbenzene** detected above its 110,000 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; and **Xylenes** detected above its 150,000 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg.

Exceedances above the Soil Saturation Concentration Screening Level:

These screening levels are an estimate of the concentration at which the soil pore water, pore air, and surface sorption sites are saturated with a particular hazardous substance, based upon the properties of the soil and hazardous substances (MDEQ 2007f). Above this theoretical threshold concentration, the hazardous substance may be present in free-phase within the soil matrix - as nonaqueous phase liquids (NAPLs) for substances that are liquid at ambient soil temperatures, and pure solid phases for compounds that are solids at ambient soil temperatures. Because these levels are theoretical values, concentrations greater than the screening levels are not definitive evidence of a saturated soil condition or the presence of free-phase liquids or solids. Instead, they are conservative estimates of when saturation conditions may occur. Concentrations at or near saturation may require response actions as a matter of source control or to address unacceptable risks not accounted for in the development of generic criteria.

Two volatile organic compounds were detected in soil boring samples at concentrations that exceeded their screening levels. These included: **1,2,4-Trimethylbenzene** detected above its 110,000 µg/kg criterion in sample SB7 at a concentration of 140,000 µg/kg; and **Xylenes** detected above its 150,000 µg/kg criterion in sample SB7 at a concentration of 180,000 µg/kg.

DISCUSSION

Staff of the MDEQ conducted a BFRA of the Property in accordance with the CA with the U.S. EPA and according to the approved work plan. The BFRA included: file and information searches; reconnaissance inspections of the Property; the collection and analyses of surficial soil and subsurface soil samples; GPS data collection of sample locations and property features; the collection of property feature photographs; data evaluation; and the writing of this report.

Analysis of 21 soil samples collected during the BFRA of the Property detected the presence of organic compounds and inorganic analytes at concentrations greater than Part 201 Generic Residential Cleanup Criteria. These contaminants of concern (COCs) included:

- seven volatile organic compounds (benzene, sec-butylbenzene, ethylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes),
- four semi-volatile organic compounds (benzo(a)pyrene, fluoranthene, naphthalene, and phenanthrene), and
- 16 inorganic analytes (antimony, arsenic, barium, cadmium, total chromium, cobalt, copper, cyanide, iron, lead, mercury, molybdenum, selenium, silver, vanadium, and zinc).

Because these COCs were detected at concentrations in excess of the Generic Residential Cleanup Criteria, the Property meets the definition of a facility under Part 201. Statewide default values were used as the initial background values for the inorganic analytes in the facility determination. A more detailed background evaluation beginning on page 19 concluded that some of the sample inorganic analyte concentrations may be below background. This was mainly true for the deeper soil boring samples.

The initial evaluation determined that sample concentrations exceeded soil criteria in five different exposure pathways. Staff later determined that some of these were not reasonable and relevant pathways. The five are shown below along with their specific criteria categories:

1. Drinking Water (DW) pathway (not reasonable and relevant)
    1.1. Soil criteria protective of groundwater
        1.1.1. Residential and Commercial I Drinking Water Protection Criteria (RDWPC)
        1.1.2. Industrial and Commercial II, III, and IV Drinking Water Protection Criteria (ICDWPC)
2. Groundwater Surface Water Interface (GSI) pathway (not reasonable and relevant)
    2.1. Soil criteria protective of groundwater
        2.1.1. Groundwater Surface Water Interface Protection Criteria (GSIPC)

3. Groundwater Contact (GC) pathway (reasonable and relevant)
    3.1. Soil criteria protective of groundwater
        3.1.1. Groundwater Contact Protection Criteria (GCPC)
4. Vapor Intrusion pathway (reasonable and relevant)
    4.1. Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIIC)
    4.2. Industrial and Commercial II, III, & IV SVIIC
5. Direct Contact (DC) pathway (reasonable and relevant)
    5.1. Residential & Commercial I Direct Contact Criteria
    5.2. Industrial & Commercial II Direct Contact Criteria
    5.3. Commercial III Direct Contact Criteria
    5.4. Commercial IV Direct Contact Criteria
    5.5. Soil Saturation Concentration Screening Levels

Exposure Pathway Evaluation

Three of the five pathways noted above appear to be reasonable and relevant in determining appropriate exposure assumptions and applicable criteria. "Relevant pathway" and "applicable criterion" are defined in Rules 103(h) and 101(c), respectively, of the Part 201 Administrative Rules. The GC, Vapor Intrusion and DC pathways have reasonable potentials to result in exposure to human or nonhuman receptors from a hazardous substance emanating from a source area at the Property.

Drinking Water (DW) Pathway

This pathway is probably not relevant for the Property. Part 201 Administrative Rule 710(1) requires this pathway be considered relevant wherever the groundwater is in an aquifer or if groundwater can reasonably be transported into an aquifer. Groundwater at the Property is not in an aquifer. The entire Detroit area is characterized by moderately thick, low-yielding, glacial lacustrine clay and silt (MDEQ 2007g, Rheaume 1991). These deposits are generally incapable of yielding adequate groundwater supplies. In addition, potentially contaminated groundwater at the Property is unlikely to migrate to an aquifer since the nearest sand and gravel aquifer is four miles to the south-southwest (MDEQ 2007d). This is the main reason why groundwater samples were not collected at the Property.

Groundwater Surface Water Interface (GSI) Pathway

The GSI pathway is probably not relevant for the Property. Part 201 Administrative Rule 716 outlines the factors to be considered for this pathway to be relevant. It would be relevant if an investigation or application of professional judgment leads to the conclusion that hazardous substances in groundwater are likely to vent to surface waters at concentrations exceeding generic GSI values.

This is not likely to take place for several reasons. Since groundwater in this area is not in an aquifer, the necessary hydraulic connection with surface waters can not be established. The nearest surface water body, the Detroit River, is 3.9 miles to the south-southeast. Water table elevations do suggest potential groundwater flow towards the south (MDEQ 2007e), but due to the clay or silt deposits present, hydraulic conductivities will be very low. This pathway could be considered relevant if contaminated groundwater from the Property were likely to enter a storm sewer or a permeable drainage area that connect to the Detroit River.

Groundwater Contact (GC) pathway

This pathway is relevant at the Property for several reasons. Concentrations of two volatile organic compounds in sample SB7 exceeded Groundwater Contact Protection criteria. 1,2,4-Trimethylbenzene and xylenes exceeded their criteria in this pathway. This means the concentrations were high enough for these compounds to leach into groundwater at levels above the generic GC criteria. Sample SB7 was logged as being wet at about four feet deep, with a noticeable petroleum odor and sheen on the water. Future below ground construction or utilities work could reasonably result in exposures to workers. This might be the case if the underground storage tanks present at the Property needed to be removed in the future.

Vapor Intrusion Pathway

This pathway is relevant at the Property. It is relevant for volatile hazardous substances in soil that could volatilize to indoor air, Rule 532(7)(xi), and that have a Henry's Law constant greater than or equal to 0.00001 atm-m^3/mol, Rule 724(1). Three volatile organic compounds that exceeded SVIIC concentrations meet this requirement. Benzene has a Henry's Law constant value of 0.00555, 1,2,4-trimethylbenzene has a value of 0.00587, and xylenes have a value of 0.00604 (MDEQ 2002). These were detected in samples SB6 or SB7.

Any future construction of buildings at the Property will need to consider this pathway. The generic criteria for this pathway are only relevant for poured concrete floors or walls, or hollow block structures, and for buildings without a sump, Rule 724(2). For other types of buildings, site-specific criteria will need to be developed.

Direct Contact (DC) Pathway

The DC pathway is relevant since exposure by dermal contact with or ingestion of contaminated surficial or subsurface soils is likely, especially during future redevelopment activities and uses. One organic and two inorganic analytes exceeded their generic DC criteria. Compliance with soil DC criteria is required throughout the soil column for generic land use categories.

In the surficial soil samples, the DC exceedances were distributed around the north and west sides of the Property in all the samples but two. The highest concentrations were found on the north side, in samples SS1, SS2, SS2 DUP, and SS4. All the arsenic concentrations were determined to be below the acceptable sandy soil background level of 20 mg/kg, except in sample SS4, with a concentration of 45 mg/kg. See the Soil Background Evaluation above on page 19 and Appendix E. Lead concentrations exceeding DC levels were highest in sample SS2, but also exceeded DC levels in nine of the eleven surficial soil samples. For lead, the DC risk is distributed around most of the north and west sides of the Property. Only one organic compound, benzo(a)pyrene, exceeded DC criteria, and only at sample SS1.

In the soil boring samples, only samples SB7 and SB9 contained COC concentrations exceeding DC levels. This occurred for benzo(a)pyrene at SB9, and for 1,2,4-trimethylbenzene and xylenes at SB7. Arsenic was initially considered a DC risk, but an evaluation of background levels for clay soils determined arsenic was below the acceptable background level of 37 mg/kg.

Soil Background Evaluation

Any evaluation of inorganic COCs in soils must include an evaluation of naturally occurring background levels. All the inorganic COCs can be naturally occurring at certain concentrations in the southeastern region of the state where the Property is located. Staff of the MDEQ evaluated the concentration ranges of fifteen inorganic COCs found in soil samples. This was done by comparing COC concentrations to data found in the 2005 Michigan Background Soil Survey (MBSS) (MDEQ 2005a). The MBSS does not include data for cyanide. MBSS data for sandy soil was used for surficial soil samples since these were largely sandy in texture. MBSS data for clay soil was used for soil boring samples since these were mostly clay in texture. Also, MBSS data for the Huron-Erie glacial lobe was used since the Property is located in an area affected by this glacial lobe. See Appendix E for tables summarizing this evaluation.

Staff compared the inorganic COC concentration ranges found in surficial soil samples to the MBSS data, and found that most were above naturally occurring concentrations. All the metals except molybdenum exceeded the statewide background calculated to two standard deviations. Acceptable soil background values are often calculated as the mean plus two standard deviations (2 SD), or in some cases three standard deviations. The upper limit of background data should not be calculated unless adequate data exists (MDEQ 2005c). Six of the COCs also exceeded the 2 SD values specific to the Huron-Erie glacial lobe. Eleven of the COCs exceeded the statewide maximum value. This evaluation for surficial soils highly suggests that many, but not all, of the inorganic COC concentrations found in the samples exceed naturally occurring concentrations at the Property.

Staff also compared inorganic COC concentrations found in soil boring samples to the MBSS data, and found fewer above naturally occurring concentrations than in surficial soil samples. Four metals exceeded the statewide 2 SD values: total chromium, cobalt,

selenium and zinc. Only zinc exceeded the statewide maximum. Total chromium and zinc exceeded the lobe-specific 2 SD value. Based on this evaluation, all the COCs found in soil boring samples could be within naturally occurring background levels except zinc. To be conservative and protective, staff believes the four metals that exceed the statewide 2 SD values are above background.

Surficial Soils

The COCs in the surficial soil samples on the Property includes three semi-volatile organic compounds and fifteen inorganic analytes. The semi-volatiles include benzo(a)pyrene, fluoranthene, and naphthalene. The inorganics include antimony, arsenic, barium, cadmium, total chromium, cobalt, copper, cyanide, iron, lead, mercury, selenium, silver, vanadium and zinc. From the soil background evaluation above, molybdenum is not a COC. The higher concentrations of COCs seem to be located on the north and west sides of the Property. These COCs occurred in three of the exposure pathways noted in the Discussion section introduction: drinking water protection, groundwater surface water interface protection, and direct contact.

Subsurface Soils

The COCs in the deep soils on the Property include several organic compounds and inorganic analytes. These include seven volatile organic compounds: benzene, sec-butylbenzene, ethylbenzene, n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes; three semi-volatile organic compounds: fluoranthene, naphthalene, and phenanthrene; and four inorganic analytes: total chromium, cobalt, selenium, and zinc. Based on the soil background evaluation above, arsenic, iron, and molybdenum are not considered COCs in the deeper soil boring samples from the Property.

Many of the organic COCs found in soil samples at the Property can be attributable to past activities. Historical uses of the Property have included gasoline filling station and automotive repair. Most of the volatile organic compounds found here have been COCs at other BFRAs that were former filling stations or auto repair facilities (MDEQ 2004). All three semi-volatile organic compounds have also been COCs at other petroleum-release BFRAs (MDEQ 2004, 2005b). All the volatile COCs and naphthalene are known constituents of gasoline (Dragun 1990).

Some of the inorganic COCs are also known to be associated with products used in auto repair. Chromium is used as a rust inhibitor (ATSDR 2000). Cobalt is used in automobile exhaust controls, in rubber tires, and in paints, varnishes and lacquers (DermNet NZ 2007), and in alloys used for grinding and cutting tools and as colorants and driers in paints (ATSDR 2004). Selenium and selenium compounds are used in plastics and paints (ATSDR 2003). Zinc and its compounds are used in paints and rubber (ATSDR 2005).

Recommendations

Based on the findings of the BFRA, the MDEQ staff recommends that the following issues should be addressed before, or during, the redevelopment of the Property:

- All three relevant exposure pathways should be considered and further evaluated before and during any future redevelopment activity;

- Since subsurface soils in the southeast part of the Property contain high levels of volatile organic compounds, this area will need to be mitigated to eliminate future exposures due to direct contact with soils and shallow groundwater or due to exposures to indoor air.

- Risks due to direct contact with soils will need to be evaluated prior to redevelopment.

- The contaminants of concern should be considered with respect to responsibilities that may exist under Part 201. The nature of any response activity that may be required is dependent on the intended use of the Property and the party's liability under Part 201. A person who is liable for the contamination is required to achieve cleanup of the Property consistent with the cleanup criteria. The relevant criteria are a function of the intended property use, such as residential, commercial, or industrial. A non-liable developer is not required to implement a cleanup to achieve the appropriate cleanup criteria. However, a non-liable party must comply with the "due care" provisions specified in Section 7a obligations of Part 201. These obligations include not exacerbating the existing contamination, exercising due care to assure there are not unacceptable exposures, and taking reasonable precautions against the reasonably foreseeable activities of third parties.

- Further information concerning Part 201 cleanup criteria, due care provisions, and remedial and/or removal activities may be obtained from the MDEQ Remediation and Redevelopment Division, Southeast Michigan District Office at 313-456-4700.

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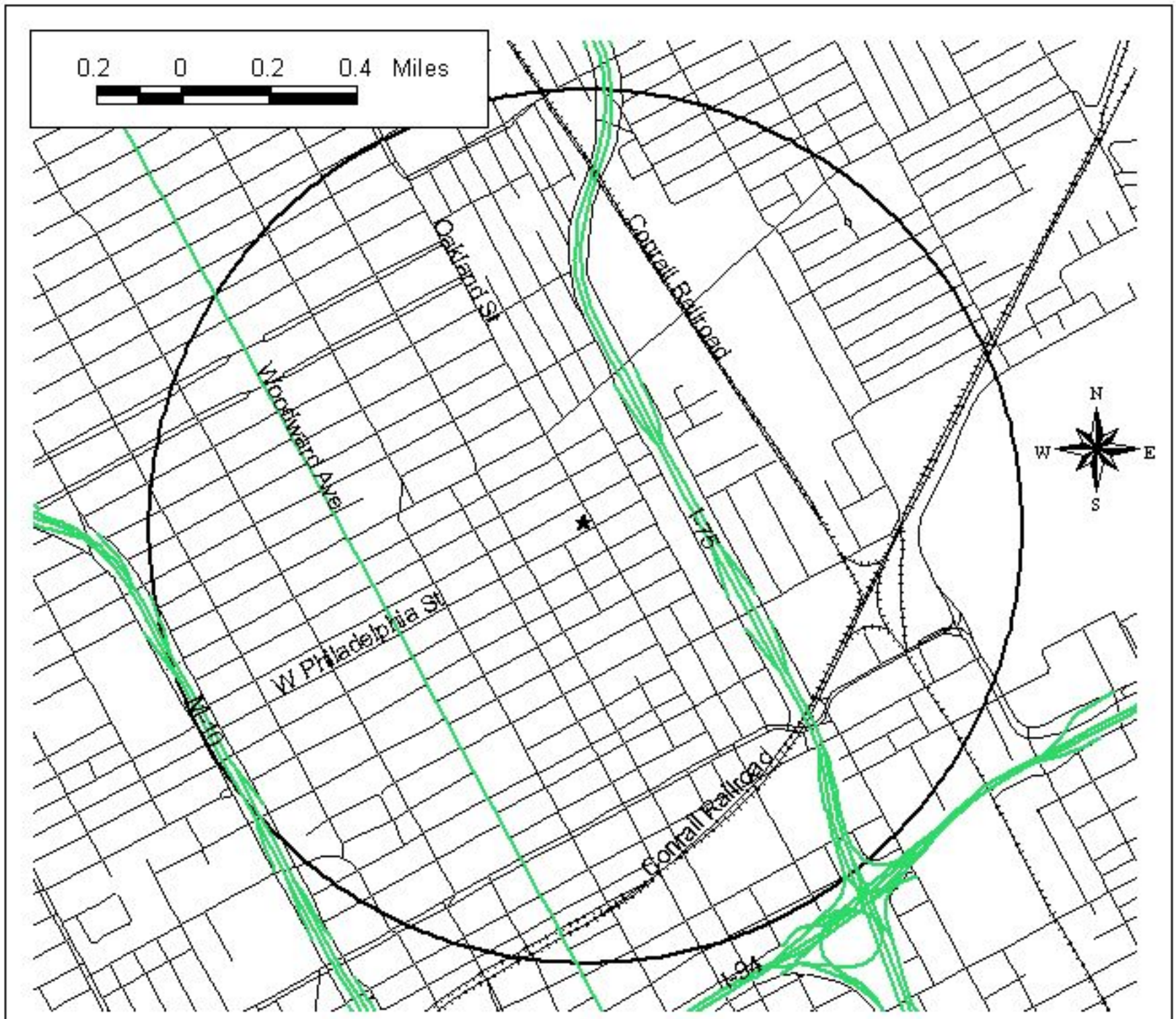
FIGURES

FIGURE 1
PROPERTY LOCATION



Sources: MDEQ (2007e,g,h), MDIT (2007), MDLEG (2006)

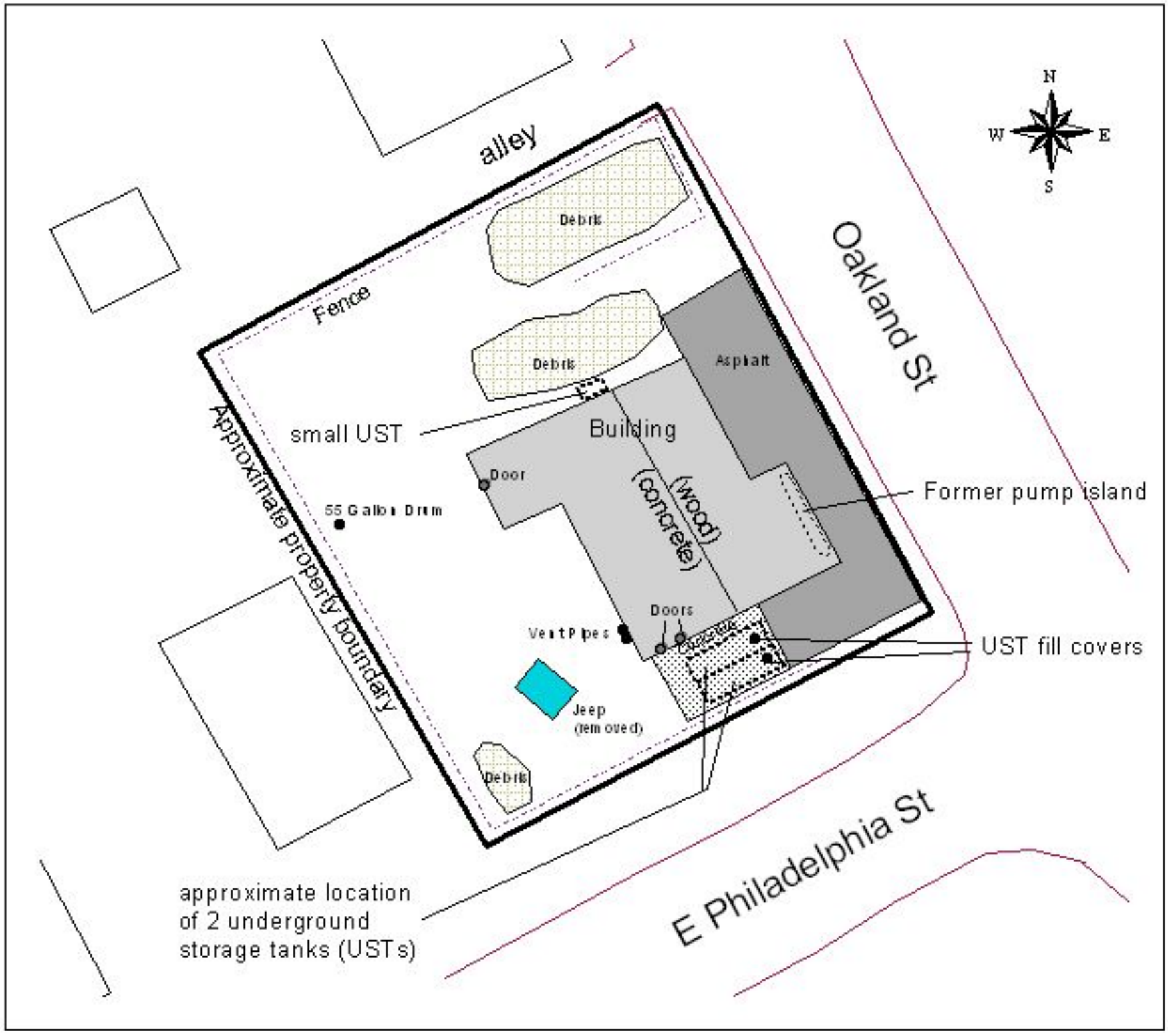
★ Property location

John's Tire Repair property location within Wayne County

Compiled 8/10/07, JES
Michigan GeoRef NAD-83 meters
Done in ArcView 3.2

BROWNFIELD REDEVELOPMENT ASSESSMENT REPORT
John's Tire Repair, MIB000000135
Michigan Department of Environmental Quality
Remedation and Redevelopment Division
Superfund Section, Site Evaluation Unit

FIGURE 2
PROPERTY FEATURES



Sources: MDEQ (2007c,e,f)

100 0 100 Feet

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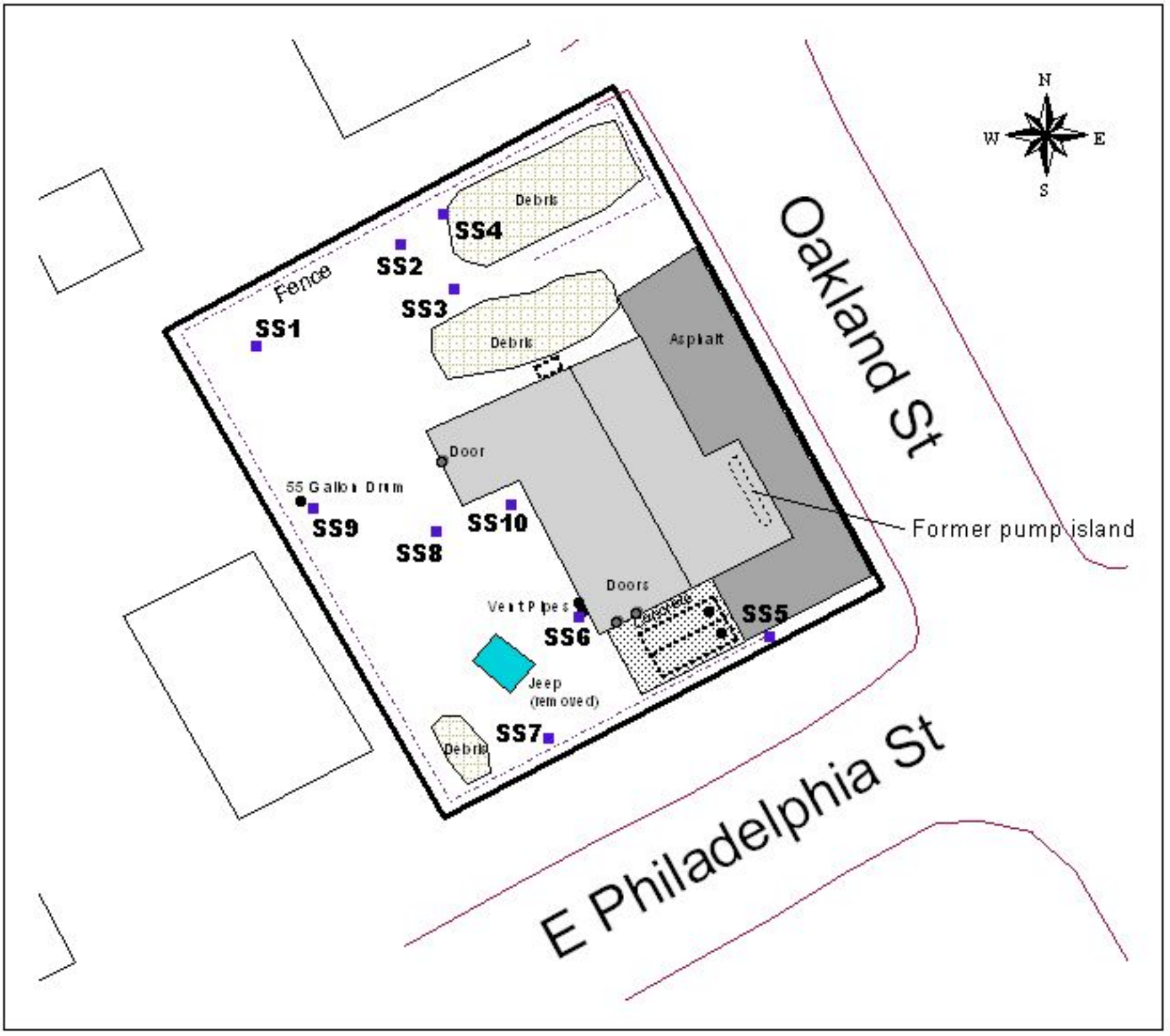
Superfund Section, Site Evaluation Unit

Compiled 8/10/07, JES
Michigan GeoRef NAD-83 meters
Done in ArcView 3.2

FIGURE 3
SURFICIAL SOIL SAMPLE LOCATIONS



Sources: MDEQ (2007c)

100 0 100 Feet

Compiled 8/10/07, JES
Michigan GeoRef NAD-83 meters
Done in ArcView 3.2

Legend

■ Surficial Soil 1

SS1

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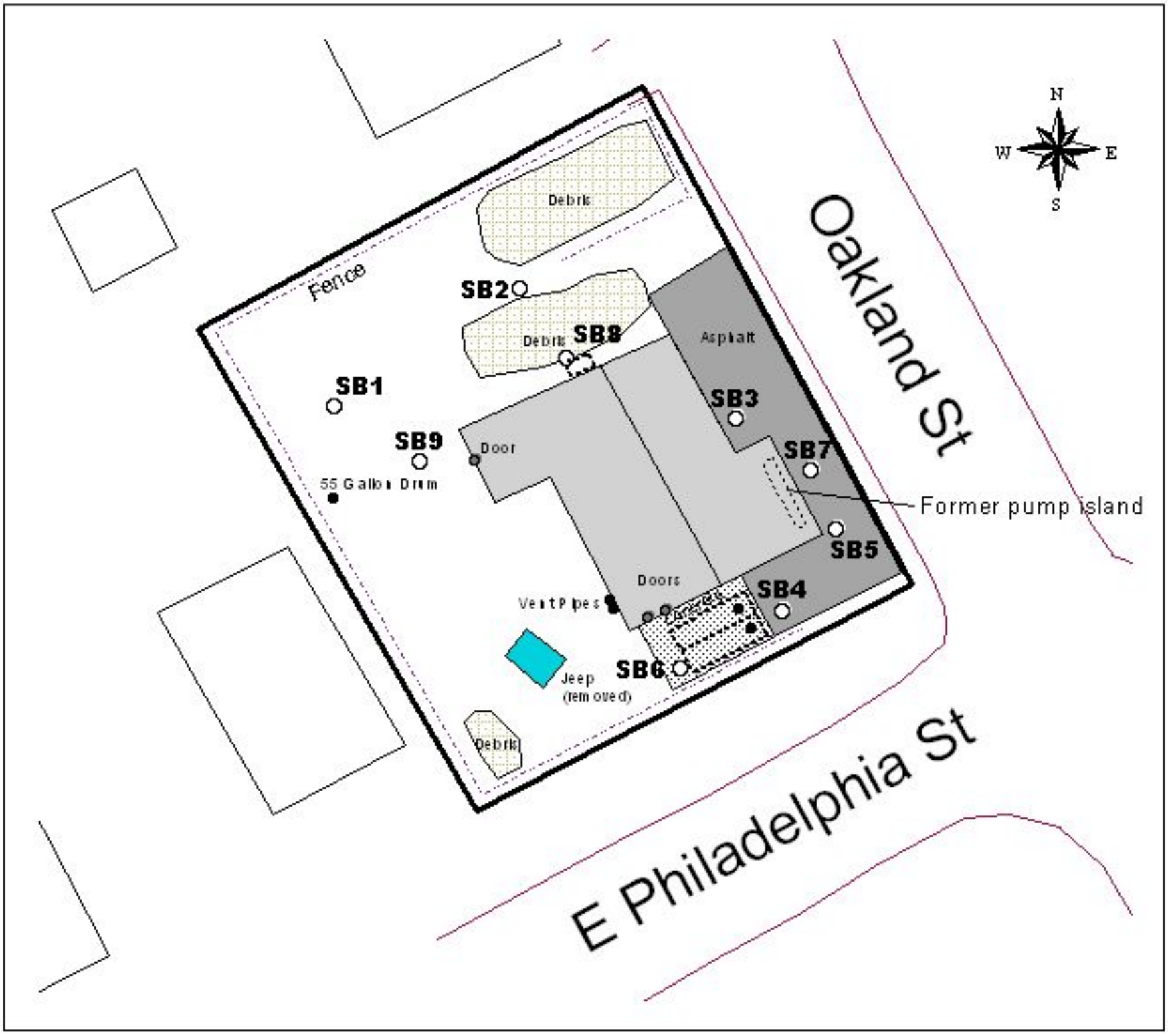
FIGURE 4
SOIL BORING SAMPLE LOCATIONS



Sources: MDEQ (2007c)

100 0 100 Feet

Compiled 8/10/07, JES
Michigan GeoRef NAD-83 meters
Done in ArcView 3.2

Legend

SB1 ○ Soil Boring 1

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TABLES

TABLE 1

SURFICIAL SOIL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH (in.)	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS1	207702.653	741038.254	0-½ ½-5 5 6	Leaves and piled lumber. Moist, black, medium sand – no rocks. Dark gray clay with some medium sand and fine rocks – bottle cap. Hit something metal in the clay area.	Volatile Organic Analysis (VOA) fraction collected at 6 in.
SS2 **SS2 DUP**	207709.429	741047.881	 0-4	At the surface – bolts, bricks, asphalt, plastic. About 2 in. down, a cement slab or metal plate with red bricks along one side, down 4 in. Slightly moist, black, medium sand with lots of debris.	VOA collected at 5 in.
SS3 **MS/MSD**	207706.396	741051.404	 1-5 5-6	A little sod on top – 0-1 in. Moist, black, medium sand with many rocks and gravel. Dark gray, fine, sandy clay with some black, medium sand and some gravel.	VOA collected at 6 in.
SS4	207711.442	741050.723	 0-1 1-6 6-8	Leaves at the surface. Black, medium sand with fine to medium gravel, cement. Black, medium sand with many rocks 2-3 in. in diameter. Moist soil – some roots. Dark gray clay with some sand and rocks.	VOA collected at 6 in.

TABLE 1 (cont.)

SURFICIAL SOIL SAMPLE DESCRIPTIONS

SAMPLE NUMBER	LOCATION COORDINATES		DEPTH (in.)	DESCRIPTION	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting			
SS5	207683.297 not GPSed; estimated	741072.377 not GPSed; estimated	0-½ ½-8	Leaves – plastic - garbage. Moist, dark brown, medium to fine sand with some roots and a little gravel.	VOA collected at 2 in.
SS6	207684.701	741059.724	0-½ ½-8 8-	Leaf litter. Medium to dark brown, medium sand with many rocks and gravel. Moist then wet at 8 in. – lots of gravel. Wet, dark brown, fine sand with some gray clay pieces – worms – less gravel.	VOA collected at 6-7 in.
SS7	207676.654	741057.705	0-½ ½-2 2-4 4-5	Leaves – garbage. Moist, black, medium to fine sand – saturated. Saturated, gray, clay layer similar to what we hit on previous samples, gravel at 5 in. Wet, with clay and gravel – saturated.	VOA collected at 2-3 in.
SS8	207690.280	741050.250	0-½ ½-6	Leaf litter. Moist, black, medium to fine sand – some rocks.	VOA collected at 6 in.
SS9	207691.917 not GPSed; estimated	741042.038 not GPSed; estimated	 0-5 5-9	Leaves – litter – moist, very loose soil – black, medium sand. Moist, black, medium sand. Black, fine sand with some dark gray chunks of clay.	VOA collected at 8 in.
SS10	207692.118	741055.261	0-5	Medium to fine sand with a high odor (fuel oil?). Looks like tar.	VOA not available.

Location Coordinates: Michigan Georef North American Datum (NAD) 1983 meters

John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS1	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Anthracene	1,300			41,000		41,000		ID		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	2,400			NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	3,500			NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Benzo(a)pyrene (Q)	2,300	T		NLL		NLL		NLL		2,000		8,000		16,000		11,000	
	Chrysene (Q)	2,500			NLL		NLL		NLL		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	5,700			730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	2-Methylnaphthalene	450	X7		57,000		170,000		ID		8,100,000		26,000,000		37,000,000		31,000,000	
	Naphthalene	1,300	X		35,000		100,000		870		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	4,800			56,000		160,000		5,300		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	4,400			480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDD	28			NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	530	D		NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	1,700	D		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	Dieldrin	500	D		NLL		NLL		NLL		1,100		4,700		8,300		6,100	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	3.1	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	11	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	300		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.67			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	4.1		1.2	6.0		6.0		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	31		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	6.9		6.8	0.8		2.0		2.0		2,600		9,000		10,000		10,000	
	Copper (B)	93		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.7	3	0.39	4.0		4.0		0.1		12		250		250		250	
	Iron (B)	23,000	D	12,000	6.0		6.0		NA		160,000		580,000		620,000		600,000	
	Lead (B)	780		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Mercury [Total] (B,Z)	0.38		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Vanadium	20			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	950		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
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John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS2	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Benzo(a)anthracene (Q)	1,400			NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	2,300	T		NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Benzo(a)pyrene (Q)	1,400	T		NLL		NLL		NLL		2,000		8,000		16,000		11,000	
	Chrysene (Q)	1,600			NLL		NLL		NLL		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	3,500			730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	Phenanthrene	2,600			56,000		160,000		5,300		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	2,900			480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	4-4'-DDD	59			NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	260			NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	1600	D		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	4.3	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	9.3	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	290		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.78			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	3.7		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	36		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	4.8		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	74		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.75	3	0.39	4		4		0.1		12		250		250		250	
	Iron (B)	1,900	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	1,300		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Lithium (B)	3.0		9.8	3.4		7		1.9		4,200	DD	31,000	DD	35,000	DD	33,000	DD
	Mercury [Total] (B,Z)	0.30		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Nickel (B)	28		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	1.0		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.48		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	23			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	820		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

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John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SS2 DUP	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	1,200	T		NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Benzo(a)pyrene (Q)	1,100	T		NLL		NLL		NLL		2,000		8,000		16,000		11,000	
	Chrysene (Q)	1,100	T		NLL		NLL		NLL		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	1,900			730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	Phenanthrene	2,300			56,000		160,000		5,300		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	2,200			480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDD	62			NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	240			NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	1,600	D		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	3.5	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	8.3	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	270		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.67			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	3.6		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	30		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	4.6		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	77		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.5	3	0.39	4		4		0.1		12		250		250		250	
	Iron (B)	16,000	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	1,300		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Mercury [Total] (B,Z)	0.38		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Molybdenum (B)	2.6			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	24		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	1.1		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.54		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	19			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	820		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
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John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes
SS3	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Toluene (I)	69			16,000		16,000		2,800		250,000	C	250,000	C	250,000	C	250,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	130			NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Chrysene (Q)	170			NLL		NLL		NLL		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	200			730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	2-Methylnaphthalene	230	T		57,000		170,000		ID		8,100,000		26,000,000		37,000,000		31,000,000	
	Naphthalene	140			35,000		100,000		870		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	140			56,000		160,000		5,300		1,600,000		5,200,000		7,200,000		6,100,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDT	95	D T		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	2.8	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	6.4	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	220		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.49	3		51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	3.6		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	33		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	3.9		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	96		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Iron (B)	23,000	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	1,200		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Mercury [Total] (B,Z)	0.11		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Molybdenum (B)	2.7			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	30		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	0.80		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.30		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	22			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	490		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

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April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS4	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Anthracene	780	T		41,000		41,000		ID		230,000,000		730,000,000		1,000,000,000		860,000,000	
	Benzo(a)anthracene (Q)	1,700			NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Chrysene (Q)	1,500			NLL		NLL		NLL		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	3,800			730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	Naphthalene	520	T		35,000		100,000		870		16,000,000		52,000,000		72,000,000		61,000,000	
	Phenanthrene	4,100			56,000		160,000		5,300		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	3,100			480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	4-4'-DDD	30			NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	140			NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	740	D		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	3.3	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	45	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	500		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.88			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	3.1		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	45		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	7.2		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	100		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Iron (B)	22,000	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	1,200		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Mercury [Total] (B,Z)	0.24		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Molybdenum (B)	2.7			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	23		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	1.3		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.40		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	23			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	1,700		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
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John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS5	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	720	T		NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Fluoranthene	1,600			730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	Phenanthrene	980	T		56,000		160,000		5,300		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	1,300	T		480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDD	60			NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	1,100	D		NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	2,000	D		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.97	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	7.0	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	44		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.3			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	1.5		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	13		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	4.8		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	29		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Cyanide (P,R)	0.54	3	0.39	4		4		0.1		12		250		250		250	
	Iron (B)	11,000	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	100		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Mercury [Total] (B,Z)	0.23		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Molybdenum (B)	2.8			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	19		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	0.57		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.83		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	14			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	370		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

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John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS6	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	140			NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Benzo(b)fluoranthene (Q)	320			NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Benzo(g,h,i)perylene	260			NLL		NLL		NLL		2,500,000		7,000,000		14,000,000		9,500,000	
	Benzo(a)pyrene (Q)	200	T		NLL		NLL		NLL		2,000		8,000		16,000		11,000	
	Chrysene (Q)	140			NLL		NLL		NLL		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	160			730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	Pyrene	160			480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDD	21	T		NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	18	T		NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	150	D		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	2.7	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	9.2	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	200		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.65			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	2.6		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	25		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	4.1		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Iron (B)	14,000	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	940		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Mercury [Total] (B,Z)	0.10		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Molybdenum (B)	2.1			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	20		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	0.94		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	2.3		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	17			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	480		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

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John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS7	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Fluoranthene	120			730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	Pyrene	130			480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDD	35			NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	52			NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	220	D		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	1.4	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	7.9	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	86		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.29			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	1.8		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	14		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	3.2		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	50		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Iron (B)	1,200	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	870		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Molybdenum (B)	1.4			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	28		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	0.72		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.17		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	11			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	220		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

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TABLE 2
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					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS8	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Toluene (I)	120			16,000		16,000		2,800		250,000	C	250,000	C	250,000	C	250,000	C
	1,2,4-Trimethylbenzene (I)	110			2,100		2,100		570		110,000	C	110,000	C	110,000	C	110,000	C
	1,3,5-Trimethylbenzene (I)	72			1,800		1,800		1,100		94,000	C	94,000	C	94,000	C	94,000	C
	Xylenes (I)	273			5,600		5,600		700		150,000	C	150,000	C	150,000	C	150,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(a)anthracene (Q)	630	T		NLL		NLL		NLL		20,000		80,000		160,000		110,000	
	Chrysene (Q)	950	T		NLL		NLL		NLL		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	900	T		730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	2-Methylnaphthalene	620	T		57,000		170,000		ID		8,100,000		26,000,000		37,000,000		31,000,000	
	Pyrene	930	T		480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDD	54			NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	44			NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	760	D		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	8.1	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	14	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	240		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.70			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	11		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	47		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	5.1		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	130		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Iron (B)	28,000	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	1,100		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Mercury [Total] (B,Z)	0.32		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Molybdenum (B)	3.7			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	38		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	1.3		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.76		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	26			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	900		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS9	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Chrysene (Q)	780	T		NLL		NLL		NLL		2,000,000		8,000,000		16,000,000		11,000,000	
	Fluoranthene	1,200	T		730,000		730,000		5,500		46,000,000		130,000,000		240,000,000		170,000,000	
	Phenanthrene	880	T		56,000		160,000		5,300		1,600,000		5,200,000		7,200,000		6,100,000	
	Pyrene	1,200	T		480,000		480,000		ID		29,000,000		84,000,000		150,000,000		110,000,000	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDD	34	2		NLL		NLL		NLL		95,000		400,000		710,000		520,000	
	4-4'-DDE	150	2		NLL		NLL		NLL		45,000		190,000		330,000		240,000	
	4-4'-DDT	740	D 2		NLL		NLL		NLL		57,000		280,000		340,000		310,000	
	Dieldrin	150	2		NLL		NLL		NLL		1,100		4,700		8,300		6,100	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	3.1	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	12	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	190		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	0.77			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	5.1		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	27		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	5.5		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	90		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Cyanide (P,R)	1.0	3	0.39	4		4		0.1		12		250		250		250	
	Iron (B)	23,000	D 2	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	910		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Manganese (B)			440	1		1		56	G,X	25,000		90,000		98,000		94,000	
	Mercury [Total] (B,Z)	0.26		0.13	1.7		1.7		0.05	M	160		580		620		600	
	Molybdenum (B)	2.9			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	33		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	1.1		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.37		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	20			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	830		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

John,s Tire Repair
April 12, 2007

TABLE 2
SURFICIAL SOIL SAMPLE DATA SUMMARY

					Groundwater Protection						Direct Contact							
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**
SS10	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Chlorobenzene (I)	87			2,000		2,000		940		260,000	C	260,000	C	260,000	C	260,000	C
	1,2-Dichlorobenzene	350			14,000		14,000		360		210,000	C	210,000	C	210,000	C	210,000	C
	1,4-Dichlorobenzene	83			1,700		1,700		290		400,000		1,900,000		2,600,000		2,200,000	
	Ethylbenzene (I)	62			1,500		1,500		360		140,000	C	140,000	C	140,000	C	140,000	C
	1,2,4-Trimethylbenzene (I)	490			2,100		2,100		570		110,000	C	110,000	C	110,000	C	110,000	C
	1,3,5-Trimethylbenzene (I)	300			1,800		1,800		1,100		94,000	C	94,000	C	94,000	C	94,000	C
	Xylenes (I)	360			5,600		5,600		700		150,000	C	150,000	C	150,000	C	150,000	C
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Polychlorinated biphenyls [PCBs] (J,T)	760	D		NLL		NLL		NLL		1,000	T	1,000	T	1,000	T	1,000	T
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	1.1	3		4.3		4.3		94	X	180		670		730		700	
	Arsenic	6.8	E	5.8	4.6		4.6		70	X	7.6		37		46		41	
	Barium (B)	190		75	1,300		1,300		440	G,X	37,000		130,000		150,000		140,000	
	Beryllium	1.9			51		51		85	G	410		1,600		1,600		1,600	
	Cadmium (B)	1.3		1.2	6		6		3.6	G,X	550		2,100		2,100		2,100	
	Chromium [VI]				30		30		3.3		2,500		9,200		10,000		9,600	
	Chromium [Total] (H)	180		18	30		30		3.3		2,500		9,200		10,000		9,600	
	Cobalt	2.6		6.8	0.8		2		2		2,600		9,000		10,000		10,000	
	Copper (B)	28		32	5,800		5,800		75	G	20,000		73,000		79,000		76,000	
	Iron (B)	54,000	D	12,000	6		6		NA		160,000		580,000		620,000		600,000	
	Lead (B)	230		21	700		700		2,800	G,M,X	400		900	DD	400		400	
	Molybdenum (B)	3.2			1.5		4.2		16	X	2,600		9,600		10,000		10,000	
	Nickel (B)	16		20	100		100		76	G	40,000		150,000		160,000		150,000	
	Selenium (B)	1.0		0.41	4		4		0.4		2,600		9,600		10,000		10,000	
	Silver (B)	0.23		1	4.5		13		0.1	M	2,500		9,000		9,800		9,400	
	Vanadium	120			72		990		190		750	DD	5,500	DD	6,200	DD	5,900	DD
	Zinc (B)	170		47	2,400		5,000		170	G	170,000		630,000		690,000		660,000	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

TABLE 3

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB1	207698.630	741041.305	N/A	N/A	0-6 6-15	Moist, brown, silty, fine sand with some fine gravel, roots, and coarse gravel. Moist, light brown, silty clay with some fine gravel. No PID reading was taken at sample location.	Sample collected by hand auger. Volatile Organic Analysis (VOA) collected from 7-8 in. Remaining sample interval collected from 4-8 in. of 0-4 ft. core.
SB2 **SB2 DUP**	207706.470	741053.792	N/A	N/A	0-2 2-11	Moist, gray, silty, fine sand with tiny gravel chunks. Moist, tan (red/orange) mottled, silty clay. PID reading N/A.	Sample collected by hand auger. VOA collected from 5-6 in. Remaining sample interval collected from 0-11 in.

TABLE 3 (cont.)

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB3	207697.780	741068.138			0-2	Asphalt.	VOA collected from
					2-5	Concrete. PID reading 0-0	32 in. of 0-4 ft. core.
MS/MSD			0-4	43	0-14	Moist, dark gray, silty clay with trace sand. PID reading 0.5 - 16	Remaining sample interval collected from
					14-43	Moist, variegated, silty clay with trace sand. PID reading 5.0-22-12	14-43 in. of 0-4 ft. core.
			4-7	48	0-2	Very moist, variegated, silty clay with	Petroleum odors
					2-6	trace sand. PID reading 0.5	throughout cores.
					6-48	Very moist, brownish gray, silty/clayey, fine sand. PID reading 0.8	
						Moist, brown, silty clay with trace sand and gravel PID reading 0.2-0.1	

TABLE 3 (cont.)

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB4	207684.947	741071.281	0-4	43	0-4	Moist, brown, silty, fine to medium sand with trace gravel and organic material. PID reading 0.0	VOA collected from 22 in. of 4-8 ft. core. Remaining sample interval collected from 15-25 in. of 4-8 ft. core. Petroleum odors in both cores.
					4-8	Broken concrete. PID reading 0.0	
					8-10	Moist, gray, fine to medium sand with some silt. PID reading 0.5	
					10-43	Moist, variegated, silty clay with trace sand. PID reading 0.8-12.1-2.5	
			4-7	48	0-6	Wet, slough. PID reading 1.0	
					6-19	Moist to very moist, brown, silty clay with occasional wet, fine sand seams. PID reading 5-8	
					19-25	Moist, gray with black streaking, silty clay with trace sand. PID reading 9.8	
					25-48	Moist, variegated, silty clay with trace sand. PID reading 2.0	

TABLE 3 (cont.)

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB5	207690.346	741074.855			0-2	Broken asphalt. PID reading 0.0	VOA collected from 30 in. of 4-8 ft. core. Remaining sample interval collected from 24-36 in. of 4-8 ft. core. Slight petroleum odors in both cores.
			0-4	12	0-3	Moist, black, silty, fine to medium sand with trace gravel and organic material. PID reading 0.5	
					3-12	Moist, brownish gray, silty, fine to medium sand with some fine gravel. PID reading 0.8	
			4-7	48	0-3	Slough. PID reading 0.5	
					3-36	Moist, variegated, silty clay with trace sand. PID reading 1.0-5.7-0.4	
					36-48	Moist, brown, silty clay with trace sand and gravel. PID reading 0.4	

TABLE 3 (cont.)

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB6	207681.126	741064.482	0-4	33	0-5	Moist, brown, fine to medium sand with some silt and gravel.	VOA collected from 34 in. of 7-10 ft. core. Remaining sample interval taken from 28-36 in. of 7-10 ft. core.
					5-19	Moist, mixed brown/black/dark brown, silty clay with trace sand and gravel.	
					19-33	Wet, brown, fine sand. PID readings 0.0	
			4-7	27	0-16	Wet, brown, fine sand.	
					16-27	Very moist, grayish brown, silty, fine sand. PID readings 5.3-0.3	
			7-10	48	0-20	Wet, brown, fine sand. PID reading 0.4	
					20-30	Wet, grayish brown, silty, fine sand. PID reading 0.8	
					30-36	Very moist, brownish gray, clayey, fine sand. PID reading 2.5	
					36-48	Moist, gray, silty clay with trace sand. PID reading 1.0	

TABLE 3 (cont.)

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB7	207694.320	741073.170			0-1 1.5	Asphalt. PID reading 0.0 Concrete. PID reading 0.0	VOA collected from 25 in. of 0-4 ft. core. Remaining sample interval taken from 15-27 in. of 0-4 ft. core. Petroleum odors throughout cores with slight sheen on water and in bottom of 0-4 ft. core.
			0-4	27	0-2	Wet, black, silty, fine to coarse sand. PID reading 20	
					2-9	Moist, gray, silty clay with trace sand. PID reading 16	
					9-27	Moist, variegated, silty clay with trace sand. PID reading 1430	
			4-7	48	0-7	Wet. Slough PID reading 4.2	
					7-19	Moist, variegated, silty clay with trace sand. PID reading 6.7	
					19-48	Moist, brown, silty clay with trace sand and gravel.	
SB8	207701.831	741056.853	N/A	N/A		Asphalt.	Sample collected by hand auger. VOA collected from 40 in.
					0-2	Moist, black, silty, fine sand and lots of fine to coarse gravel.	
					2-6	Moist, tan (red/orange) mottled, silty clay.	
					6-40	At 40 in. saturated, tan (red/orange) mottled, silty clay. PID readings N/A	

TABLE 3 (cont.)

SOIL BORING LITHOLOGY AND SAMPLE LOG

SAMPLE NUMBER	LOCATION COORDINATES		SPOON INTERVAL (ft.)	RECOVERY (in.)	UNIT THICKNESS (in.)	LITHOLOGICAL DESCRIPTION WITH PHOTOIONIZATION DETECTOR (PID) READING*	SAMPLE INTERVALS AND COMMENTS
	Northing	Easting					
SB9	207694.945	741047.045	0-4	26	0-8	Moist, black, silty sand and gravel with trace organic material.	VOA collected from 18 in. of 0-4 ft. core.
					8-12	Moist, brown, sandy silt.	
					12-15	Moist, gray, gravel with some sand.	Remaining sample interval taken from 15-26 of 0-4 ft. core.
					15-18	Moist, brownish gray, silty clay with trace sand.	
					18-21	Moist, black coal with some sand, gravel and slag.	
					21-26	Moist, variegated, silty clay with trace sand.	
						Above PID readings 0.2–0.1	
			4-7			Broken drive head. Lost core barrel.	

Location Coordinates: Michigan Georef NAD 1983 meters;
* PID reading units are parts per million (ppm).

John's Tire Repair
April 12, 2007

TABLE 4
SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection							Indoor Air				Direct Contact									
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Groundwater Contact Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes	Soil Saturation Concentration Screening Levels	Footnotes
SB1	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Anthracene	99	T		41,000		41,000		ID		41,000		1,000,000,000	D	1,000,000,000	D	230,000,000		730,000,000		1,000,000,000		860,000,000		NA	
	Benzo(a)anthracene (Q)	490			NLL		NLL		NLL		NLL		NLV		NLV		20,000		80,000		160,000		110,000		NA	
	Benzo(b)fluoranthene (Q)	560			NLL		NLL		NLL		NLL		ID		ID		20,000		80,000		160,000		110,000		NA	
	Benzo(g,h,i)perylene				NLL		NLL		NLL		NLL		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000		NA	
	Benzo(a)pyrene (Q)	470			NLL		NLL		NLL		NLL		NLV		NLV		2,000		8,000		16,000		11,000		NA	
	Chrysene (Q)	550			NLL		NLL		NLL		NLL		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000		NA	
	Fluoranthene	950			730,000		730,000		5,500		730,000		1,000,000,000	D	1,000,000,000	D	46,000,000		130,000,000		240,000,000		170,000,000		NA	
	Phenanthrene	620			56,000		160,000		5,300		1,100,000		2,800,000		5,100,000		1,600,000		5,200,000		7,200,000		6,100,000		NA	
	Pyrene	880			480,000		480,000		ID		480,000		1,000,000,000	D	1,000,000,000	D	29,000,000		84,000,000		150,000,000		110,000,000		NA	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDD	7.5	T		NLL		NLL		NLL		NLL		NLV		NLV		95,000		400,000		710,000		520,000		NA	
	4-4'-DDE	11	T		NLL		NLL		NLL		NLL		NLV		NLV		45,000		190,000		330,000		240,000		NA	
	Dieldrin	17	T		NLL		NLL		NLL		NLL		140,000		720,000		1,100		4,700		8,300		6,100		NA	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	1.5	3		4.3		4.3		94	X	49,000		NLV		NLV		180		670		730		700		NA	
	Copper (B)	58		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Iron (B)	21,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Mercury [Total] (B,Z)	0.09		0.13	1.7		1.7		0.05	M	47		48		89		160		580		620		600		NA	
	Molybdenum (B)	2.6			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Silver (B)	0.28		1	4.5		13		0.1	M	200,000		NLV		NLV		2,500		9,000		9,800		9,400		NA	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
A blank Default Background column means that value has not been determined.

John's Tire Repair
April 12, 2007

TABLE 4
SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection							Indoor Air				Direct Contact									
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Groundwater Contact Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes	Soil Saturation Concentration Screening Levels	Footnotes
SB2	***VOLATILES***	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																									
	SEMI-VOLATILES	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	Anthracene	88	T		41,000		41,000		ID		41,000		1,000,000,000	D	1,000,000,000	D	230,000,000		730,000,000		1,000,000,000		860,000,000		NA	
	Benzo(a)anthracene (Q)	260			NLL		NLL		NLL		NLL		NLV		NLV		20,000		80,000		160,000		110,000		NA	
	Benzo(b)fluoranthene (Q)	380			NLL		NLL		NLL		NLL		ID		ID		20,000		80,000		160,000		110,000		NA	
	Benzo(k)fluoranthene (Q)	130	T		NLL		NLL		NLL		NLL		NLV		NLV		200,000		800,000		1,600,000		1,100,000		NA	
	Benzo(a)pyrene (Q)	270			NLL		NLL		NLL		NLL		NLV		NLV		2,000		8,000		16,000		11,000		NA	
	Chrysene (Q)	260			NLL		NLL		NLL		NLL		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000		NA	
	Fluoranthene	540			730,000		730,000		5,500		730,000		1,000,000,000	D	1,000,000,000	D	46,000,000		130,000,000		240,000,000		170,000,000		NA	
	Phenanthrene	300			56,000		160,000		5,300		1,100,000		2,800,000		5,100,000		1,600,000		5,200,000		7,200,000		6,100,000		NA	
	Pyrene	460			480,000		480,000		ID		480,000		1,000,000,000	D	1,000,000,000	D	29,000,000		84,000,000		150,000,000		110,000,000		NA	
	PESTICIDES/PCBS	(µg/kg)		(µg/kg)	(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)		(µg/kg)	
	No volatile organic compounds detected above reporting limits.																									
	INORGANICS	(mg/kg)		(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
	Antimony	0.42	3		4.3		4.3		94	X	49,000		NLV		NLV		180		670		730		700		NA	
	Arsenic	6.8	E	5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	88		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.6			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Cadmium (B)	0.29		1.2	6		6		3.6	G,X	230,000		NLV		NLV		550		2,100		2,100		2,100		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	17		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	7.6		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	21		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Iron (B)	21,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	49		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Molybdenum (B)	2.3			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	21		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Selenium (B)	0.44		0.41	4		4		0.4		78,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Silver (B)	0.41		1	4.5		13		0.1	M	200,000		NLV		NLV		2,500		9,000		9,800		9,400		NA	
	Vanadium	27			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	82		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

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John's Tire Repair
April 12, 2007

TABLE 4
SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection							Indoor Air				Direct Contact									
Sample Number	**Hazardous Substance (Footnotes)**	**Sample Concentration**	**Qualifiers**	**Statewide Default Background Levels**	**Residential & Commercial I Drinking Water Protection Criteria**	**Footnotes**	**Industrial and Commercial II, III, & IV Drinking Water Protection Criteria**	**Footnotes**	**Groundwater Surface Water Interface Protection Criteria**	**Footnotes**	**Groundwater Contact Protection Criteria**	**Footnotes**	**Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)**	**Footnotes**	**Industrial and Commercial II, III, & IV SVIAIC**	**Footnotes**	**Residential & Commercial I Direct Contact Criteria**	**Footnotes**	**Industrial and Commercial II**	**Footnotes**	**Commercial III**	**Footnotes**	**Commercial IV**	**Footnotes**	**Soil Saturation Concentration Screening Levels**	**Footnotes**
SB2 DUP	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Anthracene	98	T		41,000		41,000		ID		41,000		1,000,000,000	D	1,000,000,000	D	230,000,000		730,000,000		1,000,000,000		860,000,000		NA	
	Benzo(a)anthracene (Q)	220			NLL		NLL		NLL		NLL		NLV		NLV		20,000		80,000		160,000		110,000		NA	
	Benzo(b)fluoranthene (Q)	300			NLL		NLL		NLL		NLL		ID		ID		20,000		80,000		160,000		110,000		NA	
	Benzo(k)fluoranthene (Q)	100	T		NLL		NLL		NLL		NLL		NLV		NLV		200,000		800,000		1,600,000		1,100,000		NA	
	Benzo(a)pyrene (Q)	210	T		NLL		NLL		NLL		NLL		NLV		NLV		2,000		8,000		16,000		11,000		NA	
	Chrysene (Q)	210			NLL		NLL		NLL		NLL		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000		NA	
	Fluoranthene	490			730,000		730,000		5,500		730,000		1,000,000,000	D	1,000,000,000	D	46,000,000		130,000,000		240,000,000		170,000,000		NA	
	Phenanthrene	350			56,000		160,000		5,300		1,100,000		2,800,000		5,100,000		1,600,000		5,200,000		7,200,000		6,100,000		NA	
	Pyrene	410			480,000		480,000		ID		480,000		1,000,000,000	D	1,000,000,000	D	29,000,000		84,000,000		150,000,000		110,000,000		NA	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.47	3		4.3		4.3		94	X	49,000		NLV		NLV		180		670		730		700		NA	
	Arsenic	6.6		5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	78		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.49			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Cadmium (B)	0.39		1.2	6		6		3.6	G,X	230,000		NLV		NLV		550		2,100		2,100		2,100		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	16		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	8.0		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	22		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Iron (B)	21,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	53		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Molybdenum (B)	2.1			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	22		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Selenium (B)	0.32		0.41	4		4		0.4		78,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Silver (B)	0.27		1	4.5		13		0.1	M	200,000		NLV		NLV		2,500		9,000		9,800		9,400		NA	
	Vanadium	23			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	79		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

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April 12, 2007

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					Groundwater Protection								Indoor Air				Direct Contact									
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Groundwater Contact Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes	Soil Saturation Concentration Screening Levels	Footnotes
SB3	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzene (I)	77			100		100		4,000	X	220,000		1,600		8,400		180,000		400,000	C	400,000	C	400,000	C	400,000	
	n-Butylbenzene	1,200			1,600		4,600		ID		120,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	sec-Butylbenzene	310			1,600		4,600		ID		88,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	Ethylbenzene (I)	1,300			1,500		1,500		360		140,000	C	87,000		140,000	C	140,000	C	140,000	C	140,000	C	140,000	C	140,000	
	Isopropyl benzene	670			91,000		260,000		ID		390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	
	n-Propylbenzene (I)	3,200			1,600		4,600		NA		300,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	1,2,4-Trimethylbenzene (I)	68			2,100		2,100		570		110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	
	1,3,5-Trimethylbenzene (I)	140			1,800		1,800		1,100		94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	
	Xylenes (I)	470			5,600		5,600		700		150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	2-Methylnaphthalene	1,600	X 7		57,000		170,000		ID		5,500,000		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000		NA	
	Naphthalene	2,400	X		35,000		100,000		870		2,100,000		250,000		470,000		16,000,000		52,000,000		72,000,000		61,000,000		NA	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	6.3	E	5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	63		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.48			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	16		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	8.1		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	14		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Iron (B)	21,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	10		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Molybdenum (B)	2.1			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	23		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Vanadium	24			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	38		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

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SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection								Indoor Air				Direct Contact									
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Groundwater Contact Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes	Soil Saturation Concentration Screening Levels	Footnotes
SB4	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzene (I)	150			100		100		4,000	X	220,000		1,600		8,400		180,000		400,000	C	400,000	C	400,000	C	400,000	
	sec-Butylbenzene	300			1,600		4,600		ID		88,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	Ethylbenzene (I)	4,100			1,500		1,500		360		140,000	C	87,000		140,000	C	140,000	C	140,000	C	140,000	C	140,000	C	140,000	
	Isopropyl benzene	1,200			91,000		260,000		ID		390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	
	n-Propylbenzene (I)	4,900			1,600		4,600		NA		300,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	Toluene (I)	210			16,000		16,000		2,800		250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	
	1,2,4-Trimethylbenzene (I)	900			2,100		2,100		570		110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	
	1,3,5-Trimethylbenzene (I)	2,600			1,800		1,800		1,100		94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	
	Xylenes (I)	3,190			5,600		5,600		700		150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	2-Methylnaphthalene	930	X 7		57,000		170,000		ID		5,500,000		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000		NA	
	Naphthalene	4,300	X 7		35,000		100,000		870		2,100,000		250,000		470,000		16,000,000		52,000,000		72,000,000		61,000,000		NA	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	17		5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	170		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.80			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Cadmium (B)	3.1		1.2	6		6		3.6	G,X	230,000		NLV		NLV		550		2,100		2,100		2,100		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	67		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	13		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	61		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Iron (B)	22,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	290		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Molybdenum (B)	3.4			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	51		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Selenium (B)	0.65		0.41	4		4		0.4		78,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Vanadium	44			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	330		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

µg/kg = microgram/kilogram mg/kg = milligram/kilogram
Qualifier definitions in Appendix D. Footnote definitions in Appendix E.
Shaded Criteria indicate an exceedance.
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John's Tire Repair
April 12, 2007

TABLE 4
SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection								Indoor Air				Direct Contact									
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Groundwater Contact Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes	Soil Saturation Concentration Screening Levels	Footnotes
SB5	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzene (I)	1,200			100		100		4,000	X	220,000		1,600		8,400		180,000		400,000	C	400,000	C	400,000	C	400,000	
	Toluene (I)	69			16,000		16,000		2,800		250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	
	Xylenes (I)	220			5,600		5,600		700		150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	4.9		5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	31		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.26			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	13		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	5.5		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	11		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Iron (B)	14,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	5.8		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Molybdenum (B)	1.2			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	16		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Vanadium	18			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	31		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

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John's Tire Repair
April 12, 2007

TABLE 4
SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection								Indoor Air				Direct Contact									
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Groundwater Contact Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes	Soil Saturation Concentration Screening Levels	Footnotes
SB6	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzene (I)	6,300			100		100		4,000	X	220,000		1,600		8,400		180,000		400,000	C	400,000	C	400,000	C	400,000	
	sec-Butylbenzene	420			1,600		4,600		ID		88,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	Ethylbenzene (I)	2,500			1,500		1,500		360		140,000	C	87,000		140,000	C	140,000	C	140,000	C	140,000	C	140,000	C	140,000	
	Isopropyl benzene	850			91,000		260,000		ID		390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	
	n-Propylbenzene (I)	2,700			1,600		4,600		NA		300,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	Toluene (I)	250			16,000		16,000		2,800		250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	C	250,000	
	1,2,4-Trimethylbenzene (I)	2,000			2,100		2,100		570		110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	
	1,3,5-Trimethylbenzene (I)	1,200			1,800		1,800		1,100		94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	
	Xylenes (I)	3,330			5,600		5,600		700		150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzo(b)fluoranthene (Q)	200	T 2		NLL		NLL		NLL		NLL		ID		ID		20,000		80,000		160,000		110,000		NA	
	Fluoranthene	340			730,000		730,000		5,500		730,000		1,000,000,000	D	1,000,000,000	D	46,000,000		130,000,000		240,000,000		170,000,000		NA	
	2-Methylnaphthalene	1,800	X 7		57,000		170,000		ID		5,500,000		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000		NA	
	Naphthalene	2,500	X		35,000		100,000		870		2,100,000		250,000		470,000		16,000,000		52,000,000		72,000,000		61,000,000		NA	
	Phenanthrene	350			56,000		160,000		5,300		1,100,000		2,800,000		5,100,000		1,600,000		5,200,000		7,200,000		6,100,000		NA	
	Pyrene	290			480,000		480,000		ID		480,000		1,000,000,000	D	1,000,000,000	D	29,000,000		84,000,000		150,000,000		110,000,000		NA	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	4-4'-DDE	13	T 2		NLL		NLL		NLL		NLL		NLV		NLV		45,000		190,000		330,000		240,000		NA	
	4-4'-DDT	96	2		NLL		NLL		NLL		NLL		NLV		NLV		57,000		280,000		340,000		310,000		NA	
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.34	3		4.3		4.3		94	X	49,000		NLV		NLV		180		670		730		700		NA	
	Arsenic	6.1		5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	72		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.39			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Cadmium (B)	0.56		1.2	6		6		3.6	G,X	230,000		NLV		NLV		550		2,100		2,100		2,100		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	12		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	5.0		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	19		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Cyanide (P,R)	0.13	3	0.39	4		4		0.1		250		NLV		NLV		12		250		250		250		NA	
	Iron (B)	14,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	100		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Molybdenum (B)	1.8			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	16		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Selenium (B)	0.30		0.41	4		4		0.4		78,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Silver (B)	0.11		1	4.5		13		0.1	M	200,000		NLV		NLV		2,500		9,000		9,800		9,400		NA	
	Vanadium	17			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	100		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

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SB7	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Benzene (I)	10,000			100		100		4,000	X	220,000		1,600		8,400		180,000		400,000	C	400,000	C	400,000	C	400,000	
	sec-Butylbenzene	2,200			1,600		4,600		ID		88,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	Ethylbenzene (I)	58,000			1,500		1,500		360		140,000	C	87,000		140,000	C	140,000	C	140,000	C	140,000	C	140,000	C	140,000	
	Isopropyl benzene	5,900			91,000		260,000		ID		390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	C	390,000	
	n-Propylbenzene (I)	24,000			1,600		4,600		NA		300,000		ID		ID		2,500,000		8,000,000		10,000,000	C	9,400,000		10,000,000	
	1,2,4-Trimethylbenzene (I)	140,000			2,100		2,100		570		110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	C	110,000	
	1,3,5-Trimethylbenzene (I)	42,000			1,800		1,800		1,100		94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	C	94,000	
	Xylenes (I)	183,000			5,600		5,600		700		150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	C	150,000	
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Fluoranthene	120			730,000		730,000		5,500		730,000		1,000,000,000	D	1,000,000,000	D	46,000,000		130,000,000		240,000,000		170,000,000		NA	
	2-Methylnaphthalene	8,900	X T		57,000		170,000		ID		5,500,000		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000		NA	
	Naphthalene	13,000	X		35,000		100,000		870		2,100,000		250,000		470,000		16,000,000		52,000,000		72,000,000		61,000,000		NA	
	Phenanthrene	220			56,000		160,000		5,300		1,100,000		2,800,000		5,100,000		1,600,000		5,200,000		7,200,000		6,100,000		NA	
	Pyrene	140			480,000		480,000		ID		480,000		1,000,000,000	D	1,000,000,000	D	29,000,000		84,000,000		150,000,000		110,000,000		NA	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Arsenic	5.4		5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	50		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.32			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	13		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	7.1		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	11		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Iron (B)	18,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	14		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Molybdenum (B)	1.7			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	19		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Vanadium	19			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	32		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

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John's Tire Repair
April 12, 2007

TABLE 4
SOIL BORING SAMPLE DATA SUMMARY

					Groundwater Protection							Indoor Air				Direct Contact									
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Groundwater Contact Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes	Soil Saturation Concentration Screening Levels	Footnotes
SB8	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	2-Methylnaphthalene	410	X 7		57,000		170,000		ID		5,500,000		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000		NA	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	0.63	3		4.3		4.3		94	X	49,000		NLV		NLV		180		670		730		700		NA	
	Arsenic	6.0		5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	88		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.56			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Cadmium (B)	0.46		1.2	6		6		3.6	G,X	230,000		NLV		NLV		550		2,100		2,100		2,100		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	21		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	7.3		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	29		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Iron (B)	20,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	100		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Molybdenum (B)	2.0			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	75		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Selenium (B)	0.27		0.41	4		4		0.4		78,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Silver (B)	0.12		1	4.5		13		0.1	M	200,000		NLV		NLV		2,500		9,000		9,800		9,400		NA	
	Vanadium	28			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	84		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

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John's Tire Repair
April 12, 2007

TABLE 4
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					Groundwater Protection								Indoor Air				Direct Contact									
Sample Number	Hazardous Substance (Footnotes)	Sample Concentration	Qualifiers	Statewide Default Background Levels	Residential & Commercial I Drinking Water Protection Criteria	Footnotes	Industrial and Commercial II, III, & IV Drinking Water Protection Criteria	Footnotes	Groundwater Surface Water Interface Protection Criteria	Footnotes	Groundwater Contact Protection Criteria	Footnotes	Residential & Commercial I Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)	Footnotes	Industrial and Commercial II, III, & IV SVIAIC	Footnotes	Residential & Commercial I Direct Contact Criteria	Footnotes	Industrial and Commercial II	Footnotes	Commercial III	Footnotes	Commercial IV	Footnotes	Soil Saturation Concentration Screening Levels	Footnotes
SB9	***VOLATILES***	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	SEMI-VOLATILES	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	Anthracene	1,500			41,000		41,000		ID		41,000		1,000,000,000	D	1,000,000,000	D	230,000,000		730,000,000		1,000,000,000		860,000,000		NA	
	Benzo(a)anthracene (Q)	4,300			NLL		NLL		NLL		NLL		NLV		NLV		20,000		80,000		160,000		110,000		NA	
	Benzo(b)fluoranthene (Q)	4,900			NLL		NLL		NLL		NLL		ID		ID		20,000		80,000		160,000		110,000		NA	
	Benzo(k)fluoranthene (Q)	1,700	T		NLL		NLL		NLL		NLL		NLV		NLV		200,000		800,000		1,600,000		1,100,000		NA	
	Benzo(g,h,i)perylene	2,200	T		NLL		NLL		NLL		NLL		NLV		NLV		2,500,000		7,000,000		14,000,000		9,500,000		NA	
	Benzo(a)pyrene (Q)	3,700			NLL		NLL		NLL		NLL		NLV		NLV		2,000		8,000		16,000		11,000		NA	
	Chrysene (Q)	4,500			NLL		NLL		NLL		NLL		ID		ID		2,000,000		8,000,000		16,000,000		11,000,000		NA	
	Fluoranthene	10,000			730,000		730,000		5,500		730,000		1,000,000,000	D	1,000,000,000	D	46,000,000		130,000,000		240,000,000		170,000,000		NA	
	Indeno(1,2,3-cd)pyrene (Q)	2,500			NLL		NLL		NLL		NLL		NLV		NLV		20,000		80,000		160,000		110,000		NA	
	2-Methylnaphthalene	3,300	X 7		57,000		170,000		ID		5,500,000		ID		ID		8,100,000		26,000,000		37,000,000		31,000,000		NA	
	Naphthalene	7,700	X		35,000		100,000		870		2,100,000		250,000		470,000		16,000,000		52,000,000		72,000,000		61,000,000		NA	
	Phenanthrene	9,500			56,000		160,000		5,300		1,100,000		2,800,000		5,100,000		1,600,000		5,200,000		7,200,000		6,100,000		NA	
	Pyrene	8,000			480,000		480,000		ID		480,000		1,000,000,000	D	1,000,000,000	D	29,000,000		84,000,000		150,000,000		110,000,000		NA	
	PESTICIDES/PCBS	*(µg/kg)*		*(µg/kg)*	*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*		*(µg/kg)*	
	No volatile organic compounds detected above reporting limits.																									
	INORGANICS	*(mg/kg)*		*(mg/kg)*	*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*		*(mg/kg)*	
	Antimony	1.8	3		4.3		4.3		94	X	49,000		NLV		NLV		180		670		730		700		NA	
	Arsenic	8.8		5.8	4.6		4.6		70	X	2,000		NLV		NLV		7.6		37		46		41		NA	
	Barium (B)	180		75	1,300		1,300		440	G,X	1,000,000	D	NLV		NLV		37,000		130,000		150,000		140,000		NA	
	Beryllium	0.93			51		51		85	G	1,000,000	D	NLV		NLV		410		1,600		1,600		1,600		NA	
	Cadmium (B)	0.66		1.2	6		6		3.6	G,X	230,000		NLV		NLV		550		2,100		2,100		2,100		NA	
	Chromium [VI]				30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Chromium [Total] (H)	19		18	30		30		3.3		140,000		NLV		NLV		2,500		9,200		10,000		9,600		NA	
	Cobalt	7.9		6.8	0.8		2		2		48,000		NLV		NLV		2,600		9,000		10,000		10,000		NA	
	Copper (B)	49		32	5,800		5,800		75	G	1,000,000	D	NLV		NLV		20,000		73,000		79,000		76,000		NA	
	Cyanide (P,R)	0.20	3	0.39	4		4		0.1		250		NLV		NLV		12		250		250		250		NA	
	Iron (B)	20,000	D	12,000	6		6		NA		1,000,000	D	NLV		NLV		160,000		580,000		620,000		600,000		NA	
	Lead (B)	230		21	700		700		2,800	G,M,X	ID		NLV		NLV		400		900	DD	400		400		NA	
	Mercury [Total] (B,Z)	0.12		0.13	1.7		1.7		0.05	M	47		48		89		160		580		620		600		NA	
	Molybdenum (B)	2.3			1.5		4.2		16	X	19,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Nickel (B)	21		20	100		100		76	G	1,000,000	D	NLV		NLV		40,000		150,000		160,000		150,000		NA	
	Selenium (B)	0.89		0.41	4		4		0.4		78,000		NLV		NLV		2,600		9,600		10,000		10,000		NA	
	Silver (B)	0.36		1	4.5		13		0.1	M	200,000		NLV		NLV		2,500		9,000		9,800		9,400		NA	
	Vanadium	27			72		990		190		1,000,000	D	NLV		NLV		750	DD	5,500	DD	6,200	DD	5,900	DD	NA	
	Zinc (B)	350		47	2,400		5,000		170	G	1,000,000	D	NLV		NLV		170,000		630,000		690,000		660,000		NA	

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